



Roy F. Weston, Inc.  
1 Weston Way  
West Chester, Pennsylvania 19380-1499  
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7 October 1997

Mr. John Matviya  
Pennsylvania Department of Environmental Protection  
400 Waterfront Drive  
Pittsburgh, PA 15222

RE: Request for Aquifer Use Determination of Corning Consumer  
Products Company Facility, Charleroi, Washington County, Pennsylvania

DEP  
97 OCT 14 AM 7:39  
SOUTHWESTERN REGION

Dear Mr. Matviya:

The Corning Consumer Products Company (Corning) is continuing to evaluate the Charleroi facility under the Pennsylvania Land Recycling Program established by Act 2 and the associated regulations. As discussed in the correspondence to you dated 31 July 1997 from Roy F. Weston, Inc. (WESTON) Corning plans to pursue the classification of the groundwater at the site as a non-use aquifer as per Section 250.303 of the final regulations for Act 2.

This letter constitutes a formal request for a determination of aquifer status. The required evidence to demonstrate aquifer use in the Corning Charleroi facility area is included in this request.

In order to determine groundwater flow direction at the site, five monitoring wells were installed to monitor groundwater in the unconsolidated material at the site. These monitoring wells were surveyed for location and elevation and a groundwater elevation flow map was prepared. This groundwater elevation map is shown on Figure 1 and shows that groundwater is flowing to the northeast, toward the Monongahela River. The survey data and water levels measured in the field are included in Appendix 1.

The data indicate that the furthest downgradient area that site related contaminants could reasonably be expected to migrate to is the river. The Monongahela River is greater than 1000 feet wide in the area adjacent to the facility. Therefore, there is no potential for current or future groundwater use in the area "within a radius of 1000 feet downgradient of the site points of compliance" (Section 250.303 b; c1; c2).

Section 250.303 c3 requires a demonstration that the area "within a radius of 1000 feet downgradient of the site points of compliance does not intersect a radius of 1/2 mile from a community water supply well source or does not intersect an area designated by PADEP as a Zone 2 Wellhead Protection Area". An environmental database report (EDR, 9 June 1997) indicates that two private supply wells and one public water supply well are present within a 1/2-mile radius of the Corning Charleroi facility. The two private supply wells appear to be old industrial water wells (1925 and 1944) located on the Corning property





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which are no longer in use. Neither of these wells could be located at the site and all historical records indicated that the plant water supply came from the Monongahela River through a water intake with a pump in the river and an "intake well" adjacent to the river (based on a 1921 facility drawing). The only wells observed during the site reconnaissance and field effort were two registered natural gas wells that are currently capped and out of service. If the water wells listed in the Federal database existed, they apparently have been abandoned and covered. Copies of the pertinent information from the EDR Database Report are included in Appendix 1.

The location of the public water supply well listed in the EDR report is incorrect based on a conversation with the owner of the well (Mr. (b) (6), (b) (6)). According to Mr. (b) (6), the well is actually located approximately 6 miles west of the facility near the town of Bentleyville. Mr. (b) (6) can be reached at the (b) (6) at (412) (b) (6). The nearest public water intake from the Monongahela River is Charleroi's public water supply intake, located approximately 4,000 feet up river (personal communication, Mr. (b) (6) 23 July 1997). Mr. (b) (6) also indicated that the nearest intake downstream of the site is the El Rama water facility approximately 5 miles downriver. WESTON also contacted the Pennsylvania Department of Environmental Protection (PADEP) Field Sanitation Officer for the site area, Mr. Clark Harris on 20 August 1997. Mr. Harris stated that there are no public water supply wells within a one mile radius of the Corning Charleroi facility.

The PADEP was contacted concerning the locations of Zone 2 Wellhead Protection Areas in the vicinity of the Corning Charleroi facility. Mr. David Bomba of the PADEP Ebensburg office stated that there are no Zone 2 Wellhead Protection Areas designated within Washington County.

WESTON met with Mr. Jamie Stache (Charleroi Code Enforcement Officer) and Messrs. Frank P. Frascatore and Robert E. Butz of the Authority of the Borough of Charleroi concerning the public water system and the potential for the existence of private wells in the Borough. Mr. Stache provided copies of the following ordinances pertaining to water use and supply in Charleroi Borough:

1. Ordinance No. 906 - Establishes minimum regulations governing the design, construction, .....and use of all buildings and structures in the Borough of Charleroi. Adopts The BOCA National Building Code, 13th Edition, 1996 as the building code for the Borough of Charleroi.
2. Ordinance No. 846 - - Establishes minimum regulations governing the design, installation and construction of plumbing systems in the Borough of Charleroi.



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Based on these ordinances and the 1996 BOCA Code, the Borough confirmed, in a letter dated 25 September 1997, that all residences that are within 150 feet of a main water line are required to be supplied by the public water mains (Ordinance 846). The Borough also confirmed that all of the buildings within 1/2 mile of the facility are less than 150 feet from a public water main and therefore are required to be connected to the Charleroi public water system. This information is useful in establishing that the businesses and other buildings adjacent (cross-gradient) to the facility are connected to the Charleroi public water supply system. According to Mr. Butz the public water system has been in operation since approximately 1912. Copies of the ordinances, pertinent sections of the BOCA Code and correspondence from the Borough of Charleroi are included in Appendix 2.

We believe that the information presented herein satisfies the requirements of the Section 250.303 of the final Act 2 regulations for the demonstration of a non-use aquifer.

We appreciate your timely evaluation of this study and look forward to working with you on the completion of this project. If you have any questions please contact Mr. (b) (4) (b) (4), WESTON Project Manager at (610) (b) (4) or Ms. (b) (4), Corning Senior Environmental Control Engineer at (607) (b) (4).

Very truly yours,

ROY F. WESTON, INC.

(b) (4)

(b) (4) P.G.  
Project Manager  
Geosciences Department

cc: (b) (4) (Corning)  
(b) (4) (Corning)  
(b) (4) (WESTON)  
(b) (4) (WESTON)

**DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION**

Interim Final 2/5/99

**RCRA Corrective Action**

**Environmental Indicator (EI) RCRIS code (CA750)**

**Migration of Contaminated Groundwater Under Control**

Facility Name: World Kitchen, LLC.  
Facility Address: 100 Eighth Street Charleroi, Pennsylvania 15022  
Facility EPA ID #: PAD004326542

1. Has all available relevant/significant information on known and reasonably suspected releases to the groundwater media, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units [SWMU], Regulated Units [RU], and Areas of Concern [AOC]), been considered in this EI determination?

- ☒ If yes – check here and continue with #2 below.  
☐ If no – re-evaluate existing data, or  
☐ If data are not available skip to #6 and enter “IN” (more information needed) status code.

**BACKGROUND**

**Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

**Definition of “Migration of Contaminated Groundwater Under Control” EI**

A positive “Migration of Contaminated Groundwater Under Control” EI determination (“YE” status code) indicates that the migration of “contaminated” groundwater has stabilized, and that monitoring will be conducted to confirm that contaminated groundwater remains within the original “area of contaminated groundwater” (for all groundwater “contamination” subject to RCRA corrective action at or from the identified facility (i.e., site-wide)).

**Relationship of EI to Final Remedies**

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The “Migration of Contaminated Groundwater Under Control” EI pertains ONLY to the physical migration (i.e., further spread) of contaminated ground water and contaminants within groundwater (e.g., non-aqueous phase liquids or NAPLs). Achieving this EI does not substitute for achieving other stabilization or final remedy requirements and expectations associated with sources of contamination and the need to restore, wherever practicable, contaminated groundwater to be suitable for its designated current and future uses.

**Duration / Applicability of EI Determinations**

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).



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2. Is groundwater known or reasonably suspected to be "contaminated"<sup>1</sup> above appropriately protective "levels" (i.e., applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action, anywhere at, or from, the facility?

  X   If yes - continue after identifying key contaminants, citing appropriate "levels," and referencing supporting documentation.

       If no - skip to #8 and enter "YE" status code, after citing appropriate "levels," and referencing supporting documentation to demonstrate that groundwater is not "contaminated."

       If unknown - skip to #8 and enter "IN" status code.

**Rationale and Reference(s):**

World Kitchen, LLC (facility) manufactures tableware and kitchenware by utilizing continuous operating processes involving glass batch mixing, controlled melting in melt furnaces, and final finishing and decorating of the products. Current manufacturing products include glassware including Pyrex®, Correlle®, Corning Ware®, Visions®, and commercial tableware.

This rectangular, 22-acre property is located on the west bank of the Monongahela River in Charleroi Borough, Washington County. The topography is relatively flat with a gentle slope towards the Monongahela River. Buildings occupy 13.8 acres and include 61 structures that were constructed between 1892 and 1988, with the main portions including the upper, middle, and Suprema manufacturing areas. The property is zoned light industrial (M2).

The facility at one time operated a small foundry that was closed and demolished in 1972. Building 63 occupies the former foundry location. The grounds are entirely protected by a security fence and guarded entrances. Currently, the facility is surrounded by the Authority of the Borough of Charleroi Waste Water Treatment Plant (WWTP) and beyond by a cement plant to the northwest, by railroad tracks and beyond by automobile repair shop, a Ford Dealership, Ingersoll-Rand Mining Machine Manufacturer, and retail merchandise stores to the southwest, by Charleroi Recreational Park and an electric power substation and beyond by retail stores to the southeast, and by the Monongahela River to the northeast.

The facility currently operates as a small quantity generator (SQG); under a Title V air permit; and discharges water through a National Pollutant Discharge Elimination System (NPDES) permit.

The facility has a long history of oil and grease permit exceedances and releases from permitted outfalls into the Monongahela River. A number of site investigations were completed between 1997 and 2001. Tank removals and subsequent contaminated-soil excavations were also completed. On October 19, 2001, the Pennsylvania Department of Environmental Protection (PADEP) sent World Kitchen the receipt and approval of the Act 2 Final Report (dated September 4, 2001) for the areas investigated and remediated. It noted that the soil and groundwater were contaminated with polychlorinated biphenyls (PCBs), lead, heavy metals, pesticides, solvents, benzene, ethylbenzene, toluene, and xylenes (BTEX), and polyaromatic hydrocarbons (PAHs). Attainment was demonstrated that soils meet the statewide health standard non-residential, direct contact Medium Specific Concentrations (MSCs) and groundwater meets non-residential, non-use aquifers MSCs at the point of compliance.

A total of 16 solid waste management units (SWMUs) have been associated with the facility, as identified during the 1989 Preliminary Assessment (PA). No organic vapors were detected above background using a photoionization detector at the SWMUs at the time of the 1989 PA. No SWMU showed signs of releases and all were in operation without plans for closure at the time of 1989 PA.

A matrix of aboveground storage tanks (ASTs) and underground storage tanks (USTs), their size, contents, and active

<sup>1</sup> "Contamination" and "contaminated" describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriate "levels" (appropriate for the protection of the groundwater resource and its beneficial uses).

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status is presented below as documented in the Act 2 Final Report:

Aboveground Storage Tanks				
Tank No.	Installation	Size (gal)	Contents	Status
001A	1982	4,500	Hydraulic Oil	Active
002A	1977	4,000	Arsenic Acid	Inactive
003A	1981	4,000	Arsenic Acid	Inactive
004A	1983	11,000	Liquid Oxygen	Active
005A	1983	11,000	Liquid Oxygen	Active
006A	1992	4,000	Diesel Fuel	Active
007A	1992	1,000	Used Oil	Active
008A	1992	120	Used Oil	Active
009A	2000	500	Gasoline	Active
010A	1999	1,000	Wastewater	Active

Underground storage Tanks					
Tank No.	Installation	Size (gal)	Contents	Removed	Excavation Notes
001	1981	1,000	Used Hydraulic Oil (O/W Separator)	1992	55 tons of contaminated soil were removed; no total petroleum hydrocarbons (TPH) detected in confirmation soil samples
002	1981	1,000	Used Lube Oil (O/W Separator)	1992	30 tons of contaminated material were removed; detected TPH at 10 and 13 mg/kg in confirmation soil samples
003	1981	30,000	Heating Oil No. 2	1992	UST located in concrete pit; no TPH or BTEX detected in water sample from pit
004	1981	30,000	Heating Oil No. 2	1992	UST located in concrete pit; no TPH or BTEX detected in water sample from pit
005	1981	30,000	Heating Oil No. 2	1992	UST located in concrete pit; no TPH or BTEX detected in water sample from pit
006	1981	2,500	Used Hydraulic Oil (O/W Separator)	1992	Removed 60 tons of contaminated material; no TPH detected in confirmation soil samples
007	1970	20,000	Fuel Oil	1989-in place	
008	1970	20,000	Fuel Oil	1989-in place	
009	1965	2,000	Gasoline	1988	
010	1981	1,500	Used Lube Oil	1992	Removed 10 tons contaminated material; no TPH detected in confirmation samples

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Note: Documented excavation contamination is presented in the table above.

The property was originally purchased in 1893 by George A. Macbeth & Co., the world's largest producer of lamp chimneys. Between 1895 and 1899, Macbeth Glass merged with Thomas Evans & Co., another large producer of lamp chimneys, to become Macbeth-Evans Glass Company. In 1916, Macbeth-Evans purchased Hamilton Bottle Works. Corning Glass Works merged with Macbeth-Evans Glass Company in 1936.

Prior to 1940, Corning Glass Works produced television tube glass in addition to houseware products. In 1966, Corning transferred a portion of the facility grounds along the northern portion of the site to the Authority of the Borough of Charleroi.

On July 27, 1989, the facility sent notification of the name change from "Corning Glass Works" to "Corning Incorporated." On January 2, 1992, the facility submitted a revised Notification of Waste Activity identifying change of ownership to Corning Vitro Corporation doing business as Corning Consumer Products Company. As the Corning Consumer Products Company was purchased by Borden Incorporated, the company was required to shed the Corning name. The company name was changed to World Kitchen, Inc. on April 1, 1998. In 2002, the company filed for bankruptcy under Chapter 11 and underwent financial reorganization. As of 2004, the company has been privately held. On May 10, 2006 the facility notified the PADEP of a name change from World Kitchen, Inc. to World Kitchen, Limited Liability Company (LLC). World Kitchen, LLC, headquartered in Rosemont, IL, manufactures, markets, and distributes bakeware, dinnerware, kitchen and household products, under many well-known brands. The Charleroi facility has been making Pyrex® for almost 100 years.

The Phase II ESA was prepared by Weston in 1997. It expounded upon Phase I ESA report that identified 15 AOCs related to the historical usage of the facility. The Phase II ESA identified potential soil and groundwater environmental issues at the facility related to storage tanks and blended fuel management. Additional impacts were associated with historical materials management and the presence of the elevated metals concentrations in surficial and near surface soil at various locations. In general, subsurface soil and groundwater across the facility are impacted by elevated metal concentrations. In August 13, 1997, an addendum to the Phase II ESA was provided by Weston which presented additional sample analysis results from a few AOCs for metals and asbestos. The Phase II ESA addendum made several recommendations including removal and evaluation of sludge materials in sumps, analysis of stormwater, and removal of surficial and near surface soils exhibiting elevated metal concentrations, and establish groundwater flow direction and apply for non-use aquifer determination.

On December 18, 1997, PADEP granted NUA status for the site following request. Since the groundwater beneath the site is not used or currently planned to be used in accordance with Act 2, the Statewide Health Standards for non-use aquifers applied to the site.

A Site Characterization Report was prepared by Weston in 1998 which included the results of the Preliminary Site Evaluation and Site Characterization Study, which included the investigation of soil, groundwater, surface water, and an asbestos-containing material survey. Also included were results of the limited remedial activities. The report recommended that a groundwater monitoring program be conducted for one year and a concrete cap be placed over the Tank 11 Production Area (AOC 4 process wastewater and oil skimmer system in lower level of Building 48) to limit infiltration of surface/stormwater runoff into subsurface soil. Completion of these recommendations would facilitate a release from future environmental liability under Act 2. The Site Characterization Study focused on historical releases associated with former underground tanks and management of raw materials for glass manufacturing. These releases were limited to specific areas of concern, which exhibited visual indicators of the potential for impact to subsurface soil and groundwater. Analytical results indicated the presence of metals and petroleum-related constituents at concentrations which generally did not exceed Act 2 standards for Non-Residential Soil and Non-Residential, Non-Use Aquifer settings, with the exception of arsenic and lead concentrations in near surface soil at four specific locations and for manganese and iron in groundwater generally across the facility.

A groundwater investigation was conducted at specific source areas and points of compliance from July 1997 through January 1999. World Kitchen subsequently petitioned for and received determination for NUA status under the Act 2. Five groundwater monitoring wells were sampled on a quarterly basis for six consecutive quarters (commencing with August 1997). PADEP stated World Kitchen had attained Act 2 groundwater MSCs and thus, the sixth monitoring event

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was the final event.

On October 19, 2001, PADEP sent World Kitchen the receipt and approval of the Act 2 Final Report (dated September 4, 2001) for the areas investigated and remediated. It noted that the soil and groundwater were contaminated with PCBs, lead, heavy metals, pesticides, solvents, BTEX, and PAHs. Chapter 5, Section 501 of the Act 2, provides liability protection to sites where attainment of cleanup standards is demonstrated. The facility continues to maintain compliance with Act 2 and no investigations have since been completed.

3. Has the **migration** of contaminated groundwater **stabilized** (such that contaminated groundwater is expected to remain within "existing area of contaminated groundwater"<sup>2</sup> as defined by the monitoring locations designated at the time of this determination)?

  X   If yes - continue, after presenting or referencing the physical evidence (e.g., groundwater sampling/measurement/migration barrier data) and rationale why contaminated groundwater is expected to remain within the (horizontal or vertical) dimensions of the "existing area of groundwater contamination"<sup>2</sup>.

       If no (contaminated groundwater is observed or expected to migrate beyond the designated locations defining the "existing area of groundwater contamination"<sup>2</sup>) - skip to #8 and enter "NO" status code, after providing an explanation.

       If unknown - skip to #8 and enter "IN" status code.

**Rationale and Reference(s):**

The facility has a long history of oil and grease and occasional metals permit exceedances and releases into the Monongahela River from permitted NPDES outfalls. Various outfall assessments have been conducted to determine the nature and extent of solids present in the outfall system. As part of the 1999 Act 2 Final Report, modeling (SOLUTE model) of groundwater and surface water conditions indicate attainment of the used aquifer, residential MSCs within 1,000 feet downgradient of the site for a period of 30 years through natural degradation processes. The mass balance model evaluation indicates that groundwater discharge would not exceed surface water quality criteria.

According to facility personnel at the May 6, 2010 site visit, the facility has not had any recent exceedances. Additionally, the facility continues to make upgrades to the "L-pit" oil-skimming/separation area to ensure oil and grease exceedances no longer occur. While the facility remains in operation, the potential to have oil and grease and metals exceedances still exist. However, there is no evidence to suggest that surface water contamination currently exists.

<sup>2</sup>"existing area of contaminated groundwater" is an area (with horizontal and vertical dimensions) that has been verifiably demonstrated to contain all relevant groundwater contamination for this determination, and is defined by designated (monitoring) locations proximate to the outer perimeter of "contamination" that can and will be sampled/tested in the future to physically verify that all "contaminated" groundwater remains within this area, and that the further migration of "contaminated" groundwater is not occurring. Reasonable allowances in the proximity of the monitoring locations are permissible to incorporate formal remedy decisions (i.e., including public participation) allowing a limited area for natural attenuation.

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4. Does "contaminated" groundwater **discharge** into **surface water** bodies?

  X   If yes - continue after identifying potentially affected surface water bodies.

       If no - skip to #7 (and enter a "YE" status code in #8, if #7 = yes) after providing an explanation and/or referencing documentation supporting that groundwater "contamination" does not enter surface water bodies.

       If unknown - skip to #8 and enter "IN" status code.

**Rationale and Reference(s):**

The facility has a long history of oil and grease and occasional metals permit exceedances and releases into the Monongahela River from permitted NPDES outfalls.



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5. Is the **discharge** of "contaminated" groundwater into surface water likely to be "**insignificant**" (i.e., the maximum concentration<sup>3</sup> of each contaminant discharging into surface water is less than 10 times their appropriate groundwater "level," and there are no other conditions (e.g., the nature, and number, of discharging contaminants, or environmental setting), which significantly increase the potential for unacceptable impacts to surface water, sediments, or eco-systems at these concentrations)?

  X   If yes - skip to #7 (and enter "YE" status code in #8 if #7 = yes), after documenting: 1) the maximum known or reasonably suspected concentration<sup>3</sup> of key contaminants discharged above their groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) provide a statement of professional judgement/explanation (or reference documentation) supporting that the discharge of groundwater contaminants into the surface water is not anticipated to have unacceptable impacts to the receiving surface water, sediments, or eco-system.

       If no - (the discharge of "contaminated" groundwater into surface water is potentially significant) - continue after documenting: 1) the maximum known or reasonably suspected concentration<sup>3</sup> of each contaminant discharged above its groundwater "level," the value of the appropriate "level(s)," and if there is evidence that the concentrations are increasing; and 2) for any contaminants discharging into surface water in concentrations<sup>3</sup> greater than 100 times their appropriate groundwater "levels," the estimated total amount (mass in kg/yr) of each of these contaminants that are being discharged (loaded) into the surface water body (at the time of the determination), and identify if there is evidence that the amount of discharging contaminants is increasing.

       If unknown - enter "IN" status code in #8.

**Rationale and Reference(s):**

The facility has a long history of oil and grease and occasional metals permit exceedances and releases into the Monongahela River from permitted NPDES outfalls. Various outfall assessments have been conducted to determine the nature and extent of solids present in the outfall system. As part of the 1999 Act 2 Final Report, modeling (SOLUTE model) of groundwater and surface water conditions indicate attainment of the used aquifer, residential MSCs within 1,000 feet downgradient of the site for a period of 30 years through natural degradation processes. The mass balance model evaluation indicates that groundwater discharge would not exceed surface water quality criteria.

<sup>3</sup> As measured in groundwater prior to entry to the groundwater-surface water/sediment interaction (e.g., hyporheic) zone.

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6. Can the discharge of "contaminated" groundwater into surface water be shown to be "currently acceptable" (i.e., not cause impacts to surface water, sediments or eco-systems that should not be allowed to continue until a final remedy decision can be made and implemented<sup>4</sup>)?

\_\_\_\_\_ If yes - continue after either: 1) identifying the Final Remedy decision incorporating these conditions, or other site-specific criteria (developed for the protection of the site's surface water, sediments, and eco-systems), and referencing supporting documentation demonstrating that these criteria are not exceeded by the discharging groundwater; OR  
2) providing or referencing an interim-assessment,<sup>5</sup> appropriate to the potential for impact, that shows the discharge of groundwater contaminants into the surface water is (in the opinion of a trained specialists, including ecologist) adequately protective of receiving surface water, sediments, and eco-systems, until such time when a full assessment and final remedy decision can be made. Factors which should be considered in the interim-assessment (where appropriate to help identify the impact associated with discharging groundwater) include: surface water body size, flow, use/classification/habitats and contaminant loading limits, other sources of surface water/sediment contamination, surface water and sediment sample results and comparisons to available and appropriate surface water and sediment "levels," as well as any other factors, such as effects on ecological receptors (e.g., via bio-assays/benthic surveys or site-specific ecological Risk Assessments), that the overseeing regulatory agency would deem appropriate for making the EI determination.

\_\_\_\_\_ If no - (the discharge of "contaminated" groundwater can not be shown to be "currently acceptable") - skip to #8 and enter "NO" status code, after documenting the currently unacceptable impacts to the surface water body, sediments, and/or eco-systems.

\_\_\_\_\_ If unknown - skip to 8 and enter "IN" status code.

**Rationale and Reference(s):**

<sup>4</sup> Note, because areas of inflowing groundwater can be critical habitats (e.g., nurseries or thermal refugia) for many species, appropriate specialist (e.g., ecologist) should be included in management decisions that could eliminate these areas by significantly altering or reversing groundwater flow pathways near surface water bodies.

<sup>5</sup> The understanding of the impacts of contaminated groundwater discharges into surface water bodies is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration to be reasonably certain that discharges are not causing currently unacceptable impacts to the surface waters, sediments or eco-systems.

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7. Will groundwater **monitoring** / measurement data (and surface water/sediment/ecological data, as necessary) be collected in the future to verify that contaminated groundwater has remained within the horizontal (or vertical, as necessary) dimensions of the "existing area of contaminated groundwater?"

  X   If yes - continue after providing or citing documentation for planned activities or future sampling/measurement events. Specifically identify the well/measurement locations which will be tested in the future to verify the expectation (identified in #3) that groundwater contamination will not be migrating horizontally (or vertically, as necessary) beyond the "existing area of groundwater contamination."

       If no - enter "NO" status code in #8.

       If unknown - enter "TN" status code in #8.

**Rationale and Reference(s):**

As part of the 1999 Act 2 Final Report, modeling (SOLUTE model) of groundwater and surface water conditions indicate attainment of the used aquifer, residential MSCs within 1,000 feet downgradient of the site for a period of 30 years through natural degradation processes. The mass balance model evaluation indicates that groundwater discharge would not exceed surface water quality criteria.

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8. Check the appropriate RCRIS status codes for the Migration of Contaminated Groundwater Under Control EI (event code CA750), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (attach appropriate supporting documentation as well as a map of the facility).

☒ **YE** Yes, "Migration of Contaminated Groundwater Under Control" has been verified.  
Based on a review of the information contained in this EI determination, it has been determined that the "Migration of Contaminated Groundwater" is "Under Control" at the World Kitchen, LLC facility,  
EPA ID # PAD004326542, located at 100 Eighth Street Charleroi, Pennsylvania 15022.  
Specifically, this determination indicates that the migration of "contaminated" groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the "existing area of contaminated groundwater". This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

☐ **NO** - Unacceptable migration of contaminated groundwater is observed or expected.

☐ **IN** - More information is needed to make a determination.

Completed by

(signature)



For Date

12/20/12

(print)

Elizabeth Buthe

(title)

Environmental Protection Specialist

Supervisor

(signature)



Date

12/20/12

(print)


Diane D. McDaniel P.E.

(title)

Engineering Manager

(EPA Region or State)

PA DEP

  
EPA R3

Locations where References may be found:

USEPA Region III  
Waste and Chemical Mgmt. Division  
1650 Arch Street  
Philadelphia, PA 19103

PADEP  
South West Regional Office  
400 Waterfront Drive  
Pittsburgh, PA 15212

Contact telephone and e-mail numbers

(name)

Diane McDaniel

(phone#)

4124424000

(e-mail)

dmc-daniel@pa.gov

  
4/9/13

4/9/2013

Facility Name:

World Kitchen, LLC

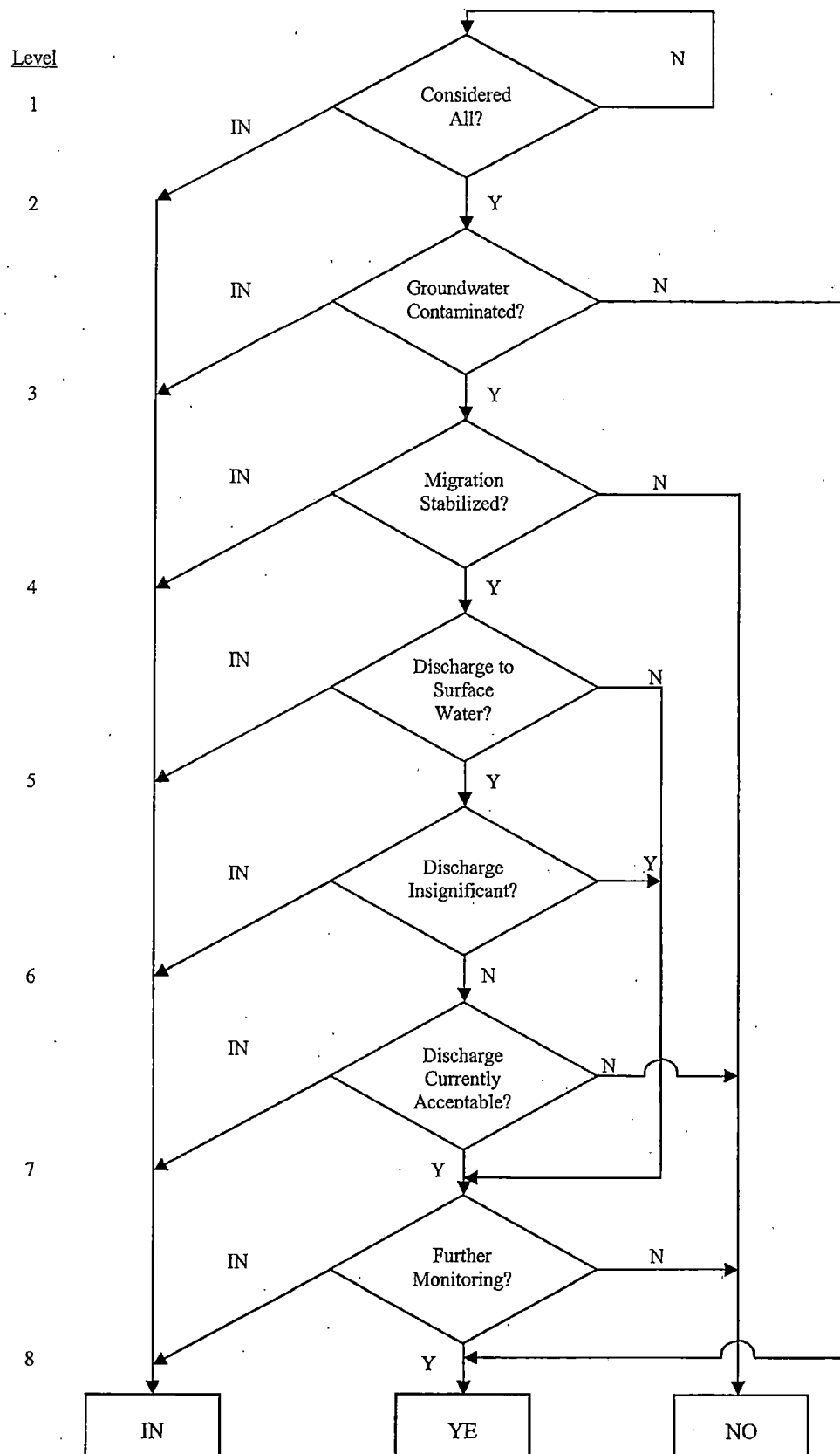
EPA ID#

PAD004326542

City/State

Charleroi, Pennsylvania 15022

### MIGRATION OF CONTAMINATED GROUNDWATER UNDER CONTROL (CA 750)





DOCUMENTATION OF ENVIRONMENTAL INDICATOR DETERMINATION

Interim Final 2/5/99

RCRA Corrective Action

Environmental Indicator (EI) RCRIS code (CA725)

Current Human Exposures Under Control

Facility Name: World Kitchen, LLC  
Facility Address: 100 Eighth Street Charleroi, Pennsylvania 15022  
Facility EPA ID #: PAD004326542

1. Has all available relevant/significant information on known and reasonably suspected releases to soil, groundwater, surface water/sediments, and air, subject to RCRA Corrective Action (e.g., from Solid Waste Management Units (SWMU), Regulated Units (RU), and Areas of Concern (AOC)), been considered in this EI determination?

☒ If yes – check here and continue with #2 below.

☐ If no – re-evaluate existing data, or

☐ If data are not available skip to #6 and enter "TN" (more information needed) status code.

**BACKGROUND**

**Definition of Environmental Indicators (for the RCRA Corrective Action)**

Environmental Indicators (EI) are measures being used by the RCRA Corrective Action program to go beyond programmatic activity measures (e.g., reports received and approved, etc.) to track changes in the quality of the environment. The two EI developed to-date indicate the quality of the environment in relation to current human exposures to contamination and the migration of contaminated groundwater. An EI for non-human (ecological) receptors is intended to be developed in the future.

**Definition of "Current Human Exposures Under Control" EI**

A positive "Current Human Exposures Under Control" EI determination ("YE" status code) indicates that there are no "unacceptable" human exposures to "contamination" (i.e., contaminants in concentrations in excess of appropriate risk-based levels) that can be reasonably expected under current land- and groundwater-use conditions (for all "contamination" subject to RCRA corrective action at or from the identified facility [i.e., site-wide]).

**Relationship of EI to Final Remedies**

While Final remedies remain the long-term objective of the RCRA Corrective Action program the EI are near-term objectives which are currently being used as Program measures for the Government Performance and Results Act of 1993, GPRA). The "Current Human Exposures Under Control" EI are for reasonably expected human exposures under current land- and groundwater-use conditions ONLY, and do not consider potential future land- or groundwater-use conditions or ecological receptors. The RCRA Corrective Action program's overall mission to protect human health and the environment requires that Final remedies address these issues (i.e., potential future human exposure scenarios, future land and groundwater uses, and ecological receptors).

**Duration / Applicability of EI Determinations**

EI Determinations status codes should remain in RCRIS national database ONLY as long as they remain true (i.e., RCRIS status codes must be changed when the regulatory authorities become aware of contrary information).

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**Environmental Indicator (EI) RCRIS code (CA725)**  
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2. Are groundwater, soil, surface water, sediments, or air media known or reasonably suspected to be “contaminated”<sup>1</sup> above appropriately protective risk-based “levels” (applicable promulgated standards, as well as other appropriate standards, guidelines, guidance, or criteria) from releases subject to RCRA Corrective Action (from SWMUs, RUs or AOCs)?

	<u>Yes</u>	<u>No</u>	<u>?</u>	<u>Rationale/Key Contaminants</u>
Groundwater	<u>X</u>	<u>      </u>	<u>      </u>	<u>Contamination remediated; Act 2.</u>
Air (indoors) <sup>2</sup>	<u>      </u>	<u>X</u>	<u>      </u>	<u>Contamination below risk-based levels.</u>
Surface Soil (e.g., <2 ft).	<u>X</u>	<u>      </u>	<u>      </u>	<u>Contamination remediated; Act 2.</u>
Surface Water	<u>      </u>	<u>X</u>	<u>      </u>	<u>Wastewater sources evaluated and remedied.</u>
Sediment	<u>      </u>	<u>X</u>	<u>      </u>	<u>Wastewater sources evaluated and remedied.</u>
Subsurf. Soil (e.g., >2 ft)	<u>X</u>	<u>      </u>	<u>      </u>	<u>Contamination remediated; Act 2.</u>
Air (outdoors)	<u>      </u>	<u>X</u>	<u>      </u>	<u>No record of contamination.</u>

  X   If no (for all media) - skip to #6, and enter “YE,” status code after providing or citing appropriate “levels,” and referencing sufficient supporting documentation demonstrating that these “levels” are not exceeded.

       If yes (for any media) - continue after identifying key contaminants in each “contaminated” medium, citing appropriate “levels” (or provide an explanation for the determination that the medium could pose an unacceptable risk), and referencing supporting documentation.

       If unknown (for any media) - skip to #6 and enter “IN” status code.

**Rationale and Reference(s):**

World Kitchen, LLC (facility) manufactures tableware and kitchenware by utilizing continuous operating processes involving glass batch mixing, controlled melting in melt furnaces, and final finishing and decorating of the products. Current manufacturing products include glassware including Pyrex®, Corelle®, Corning Ware®, Visions®, and commercial tableware.

<sup>1</sup> “Contamination” and “contaminated” describes media containing contaminants (in any form, NAPL and/or dissolved, vapors, or solids, that are subject to RCRA) in concentrations in excess of appropriately protective risk-based “levels” (for the media, that identify risks within the acceptable risk range).

<sup>2</sup> Recent evidence (from the Colorado Dept. of Public Health and Environment, and others) suggest that unacceptable indoor air concentrations are more common in structures above groundwater with volatile contaminants than previously believed. This is a rapidly developing field and reviewers are encouraged to look to the latest guidance for the appropriate methods and scale of demonstration necessary to be reasonably certain that indoor air (in structures located above (and adjacent to) groundwater with volatile contaminants) does not present unacceptable risks.

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This rectangular, 22-acre property is located on the west bank of the Monongahela River in Charleroi Borough, Washington County. The topography is relatively flat with a gentle slope towards the Monongahela River. Buildings occupy 13.8 acres and include 61 structures that were constructed between 1892 and 1988, with the main portions including the upper, middle, and Suprema manufacturing areas. The property is zoned light industrial (M2).

The facility at one time operated a small foundry that was closed and demolished in 1972. Building 63 occupies the former foundry location. The grounds are entirely protected by a security fence and guarded entrances. Currently, the facility is surrounded by the Authority of the Borough of Charleroi Waste Water Treatment Plant (WWTP) and beyond by a cement plant to the northwest, by railroad tracks and beyond by automobile repair shop, a Ford Dealership, Ingersoll-Rand Mining Machine Manufacturer, and retail merchandise stores to the southwest, by Charleroi Recreational Park and an electric power substation and beyond by retail stores to the southeast, and by the Monongahela River to the northeast.

The facility currently operates as a small quantity generator (SQG); under a Title V air permit; and discharges water through a National Pollutant Discharge Elimination System (NPDES) permit.

The facility has a long history of oil and grease permit exceedances and releases from permitted outfalls into the Monongahela River. A number of site investigations were completed between 1997 and 2001. Tank removals and subsequent contaminated-soil excavations were also completed. On October 19, 2001, the Pennsylvania Department of Environmental Protection (PADEP) sent World Kitchen the receipt and approval of the Act 2 Final Report (dated September 4, 2001) for the areas investigated and remediated. It noted that the soil and groundwater were contaminated with polychlorinated biphenyls (PCBs), lead, heavy metals, pesticides, solvents, benzene, ethylbenzene, toluene, and xylenes (BTEX), and polyaromatic hydrocarbons (PAHs). Attainment was demonstrated that soils meet the statewide health standard non-residential, direct contact Medium Specific Concentrations (MSCs) and groundwater meets non-residential, non-use aquifers MSCs at the point of compliance.

A total of 16 solid waste management units (SWMUs) have been associated with the facility, as identified during the 1989 Preliminary Assessment (PA). No organic vapors were detected above background using a photoionization detector at the SWMUs at the time of the 1989 PA. No SWMU showed signs of releases and all were in operation without plans for closure at the time of 1989 PA.

A matrix of aboveground storage tanks (ASTs) and underground storage tanks (USTs), their size, contents, and active status is presented below as documented in the Act 2 Final Report:

Aboveground Storage Tanks				
Tank No.	Installation	Size (gal)	Contents	Status
001A	1982	4,500	Hydraulic Oil	Active
002A	1977	4,000	Arsenic Acid	Inactive
003A	1981	4,000	Arsenic Acid	Inactive
004A	1983	11,000	Liquid Oxygen	Active
005A	1983	11,000	Liquid Oxygen	Active
006A	1992	4,000	Diesel Fuel	Active
007A	1992	1,000	Used Oil	Active
008A	1992	120	Used Oil	Active
009A	2000	500	Gasoline	Active
010A	1999	1,000	Wastewater	Active

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<b>Underground Storage Tanks</b>					
<b>Tank No.</b>	<b>Installation</b>	<b>Size (gal)</b>	<b>Contents</b>	<b>Removed</b>	<b>Excavation Notes</b>
001	1981	1,000	Used Hydraulic Oil (O/W Separator)	1992	55 tons of contaminated soil were removed; no total petroleum hydrocarbons (TPH) detected in confirmation soil samples
002	1981	1,000	Used Lube Oil (O/W Separator)	1992	30 tons of contaminated material were removed; detected TPH at 10 and 13 mg/kg in confirmation soil samples
003	1981	30,000	Heating Oil No. 2	1992	UST located in concrete pit; no TPH or BTEX detected in water sample from pit
004	1981	30,000	Heating Oil No. 2	1992	UST located in concrete pit; no TPH or BTEX detected in water sample from pit
005	1981	30,000	Heating Oil No. 2	1992	UST located in concrete pit; no TPH or BTEX detected in water sample from pit
006	1981	2,500	Used Hydraulic Oil (O/W Separator)	1992	Removed 60 tons of contaminated material; no TPH detected in confirmation soil samples
007	1970	20,000	Fuel Oil	1989-in place	
008	1970	20,000	Fuel Oil	1989-in place	
009	1965	2,000	Gasoline	1988	
010	1981	1,500	Used Lube Oil	1992	Removed 10 tons contaminated material; no TPH detected in confirmation samples

Note: Documented excavation contamination is presented in the table above.

The property was originally purchased in 1893 by George A. Macbeth & Co., the world's largest producer of lamp chimneys. Between 1895 and 1899, Macbeth Glass merged with Thomas Evans & Co., another large producer of lamp chimneys, to become Macbeth-Evans Glass Company. In 1916, Macbeth-Evans purchased Hamilton Bottle Works. Corning Glass Works merged with Macbeth-Evans Glass Company in 1936.

Prior to 1940, Corning Glass Works produced television tube glass in addition to houseware products. In 1966, Corning transferred a portion of the facility grounds along the northern portion of the site to the Authority of the Borough of Charleroi.

On July 27, 1989, the facility sent notification of the name change from "Corning Glass Works" to "Corning Incorporated." On January 2, 1992, the facility submitted a revised Notification of Waste Activity identifying change of

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ownership to Corning Vitro Corporation doing business as Corning Consumer Products Company. As the Corning Consumer Products Company was purchased by Borden Incorporated, the company was required to shed the Corning name. The company name was changed to World Kitchen, Inc. on April 1, 1998. In 2002, the company filed for bankruptcy under Chapter 11 and underwent financial reorganization. As of 2004, the company has been privately held. On May 10, 2006 the facility notified the PADEP of a name change from World Kitchen, Inc. to World Kitchen, Limited Liability Company (LLC). World Kitchen, LLC, headquartered in Rosemont, IL, manufactures, markets, and distributes bakeware, dinnerware, kitchen and household products, under many well-known brands. The Charleroi facility has been making Pyrex® for almost 100 years.

**Groundwater:** Groundwater has been sampled and analyzed in various investigations from 1997 through 1999 where it was reported to contain various metals at concentrations above the PA Act 2 MSCs. However, in 1997 PADEP granted non-use aquifer status for the facility as groundwater beneath the site is not used or currently planned to be used in accordance with Act 2. Five groundwater monitoring wells were sampled on a quarterly basis for six consecutive quarters (commencing with August 1997). PADEP stated World Kitchen had attained Act 2 groundwater MSCs and thus, the sixth monitoring event was the final event.

On October 19, 2001, PADEP approved the Act 2 Final Report for the areas investigated and remediated at the facility noting that soil and groundwater were previously contaminated with PCBs lead, heavy metals, pesticides, solvents, BTEX, and PAHs. The facility continues to maintain compliance with Act 2 and no investigations have since been completed. Therefore, exposure pathway controls are not relevant.

**Air:** The Pennsylvania Department of Environmental Protection (PADEP) *Land Recycling Program Technical Guidance Manual – Section IV.A.4 (Vapor Intrusion into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard)* was used for the evaluation of indoor air. Based on the analytical results (as provided in the *1999 Act 2 Final Report, Appendix B*) the following detected compounds were identified as sufficiently volatile and toxic. As such, they were compared to appropriate current screening criteria as seen in the table below:

Media	Sufficiently Volatile and Toxic Contaminant	Facility Detection (mg/kg)	PA Soil-GW MSC NUA Nonresidential	Status
Soil	Xylenes	2.4	10,000	Below
Soil	Ethylbenzene	1	7,000	Below
Soil	Toluene	0.36	10,000	Below
Soil	Benzene	0.7	50	Below
Soil	Naphthalene	0.52	7,500	Below
Groundwater	Naphthalene	430	30,000	Below

As seen in the table above, all of the above COIs are well below their respective MSCs. Therefore, in accordance with PADEP's technical guidance manual, the soil type at the site, depth of vertical separation between the source of potentially volatile constituents in soil, and groundwater (i.e., greater than or equal to five feet of "soil-like" material), and the proximity to occupied buildings was taken into account to evaluate the potential for vapor intrusion into indoor air since the MSCs for these criteria are met for those volatile compounds. As per the environmental investigation documents reviewed for the site the following conclusions have been made:

The subsurface hydrogeologic conditions at the site were encountered at varying depths from 12 feet to greater than 30 feet below ground surface; therefore, based on the five feet criterion and the low concentrations of naphthalene in groundwater, groundwater is not considered to be a source of indoor air contamination.



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- The site is currently 85% covered with either buildings or pavement further inhibiting the vapor intrusion pathway.
- The operating manufacturing facility currently consists of three buildings with offices. Building 5 has offices located on the first floor; Buildings 22 & 23 each have offices on the 2nd and 3rd floors. Every building has an HVAC system. The buildings that have operations with hazardous substances (chromium) undergo routine air sampling several times a year. Therefore, the buildings on the site would be adequately ventilated and vapors monitored and regulated.
- The subsurface geology at the site consists of fill material ranging from 0 to 4 feet in thickness composed of silty clay matrix with varying degrees of sand, gravel, and debris such as glass, brick, concrete, slag, and/or metal pieces. Silty clay was encountered from 4 to 20 feet bgs.
- While the soil occurring across the site at the 0 to 4 feet interval is heterogeneous, based on the remediation of contamination in the identified "source areas" followed by replacement with soil/fill material and capping with 18 inches of reinforced concrete, vapor intrusion of volatile constituents, that were confirmed to be below Act 2 Direct Contact, non-residential surface soil MSCs following remediation, is not expected to be of concern.

Therefore, based on the above, the volatile constituents detected and remediated in soil in limited areas of the site are not expected to be of concern for the indoor air pathway assuming a nonresidential scenario.

**Soil:** A number of site investigations and Phase II studies were completed between 1997 and 2001. They detailed tank removals and subsequent contaminated-soil excavations. On October 19, 2001, PADEP sent World Kitchen the receipt and approval of the Act 2 Final Report for the areas investigated and remediated. It noted that the soil and groundwater were contaminated with PCBs, lead, heavy metals, pesticides, solvents, BTEX, and PAHs.

The facility perimeter remains entirely protected by a security fence and entrances remain continuously guarded. While the facility remains in operation, the potential to have soil contamination still exists. As noted in the 1989 PA and verified by the site visit, the soil mapped at the site is urban land where 85% of the surface is covered by buildings, parking lots, roads, or other impervious materials. The remainder (15%) of the facility has been investigated and remediated in accordance with Act 2 standards. Therefore, exposure controls for soil are not relevant and the facility continues to maintain compliance with Act 2.

**Surface Water and Sediment:** The facility has a long history of oil and grease and occasional metals permit exceedances and releases into the Monongahela River from permitted NPDES outfalls. Various outfall assessments have been conducted to determine the nature and extent of solids present in the outfall system. The basement "L-pit" area, where oil-water skimming/separation occur, has been cleaned and upgraded. According to facility personnel at the May 6, 2010 site visit, the facility has not had any recent exceedances. Additionally, the facility continues to make upgrades to the "L-pit" oil-skimming/separation area to ensure oil and grease exceedances no longer occur. While the facility remains in operation, the potential to have oil and grease and metals exceedances still exist. However, there is no evidence to suggest that surface water contamination currently exists. Therefore, exposure controls for surface water are not relevant.

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3. Are there **complete pathways** between "contamination" and human receptors such that exposures can be reasonably expected under the current (land- and groundwater-use) conditions?

Summary Exposure Pathway Evaluation Table

Contaminated Media	Potential <u>Human Receptors</u> (Under Current Conditions)						
	<u>Residents</u>	<u>Workers</u>	<u>Day-Care</u>	<u>Construction</u>	<u>Trespassers</u>	<u>Recreation</u>	<u>Food</u> <sup>3</sup>
Groundwater	No	No	No	No	No	No	No
Air (indoors)							
Soil (surface, e.g., <2 ft.	No	No	No	No	No	No	No
Surface Water							
Sediment							
Soil (subsurface e.g., >2 ft.	No	No	No	No	No	No	No
Air (outdoors)							

Instructions for Summary Exposure Pathway Evaluation Table:

1. Strike-out specific Media including Human Receptors' spaces for Media which are not "contaminated" as identified in #2 above.
2. enter "yes" or "no" for potential "completeness" under each "Contaminated" Media -- Human Receptor combination (Pathway).

Note: In order to focus the evaluation to the most probable combinations some potential "Contaminated" Media - Human Receptor combinations (Pathways) do not have check spaces ("\_\_\_"). While these combinations may not be probable in most situations they may be possible in some settings and should be added as necessary.

  X   If no (pathways are not complete for any contaminated media-receptor combination) - skip to #6, and enter "YE" status code, after explaining and/or referencing condition(s) in-place, whether natural or man-made, preventing a complete exposure pathway from each contaminated medium (e.g., use optional Pathway Evaluation Work Sheet to analyze major pathways).

       If yes (pathways are complete for any "Contaminated" Media - Human Receptor combination) - continue after providing supporting explanation.

       If unknown (for any "Contaminated" Media - Human Receptor combination) - skip to #6 and enter "IN" status code.

**Rationale and Reference(s):**

**Groundwater:** In 1997, PADEP granted non-use aquifer status for the facility as groundwater beneath the site is not used or currently planned to be used in accordance with Act 2. The facility continues to maintain compliance with Act 2 and no investigations have since been completed. Therefore, exposure pathway controls are not relevant.

**Soil:** The facility perimeter remains entirely protected by a security fence and entrances remain continuously guarded.

<sup>3</sup> Indirect Pathway/Receptor (e.g., vegetables, fruits, crops, meat and dairy products, fish, shellfish, etc.

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While the facility remains in operation, the potential to have soil contamination still exists. As noted in the 1989 PA and verified by the site visit, the soil mapped at the site is urban land where 85% of the surface is covered by buildings, parking lots, roads, or other impervious materials. The remainder (15%) of the facility has been investigated and remediated in accordance with Act 2 standards. Therefore, exposure controls for soil are not relevant and the facility continues to maintain compliance with Act 2.

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4. Can the exposures from any of the complete pathways identified in #3 be reasonably expected to be "significant"<sup>4</sup> (i.e., potentially "unacceptable" because exposures can be reasonably expected to be: 1) greater in magnitude (intensity, frequency and/or duration) than assumed in the derivation of the acceptable "levels" (used to identify the "contamination"); or 2) the combination of exposure magnitude (perhaps even though low) and contaminant concentrations (which may be substantially above the acceptable "levels") could result in greater than acceptable risks)?

\_\_\_\_\_ If no (exposures can not be reasonably expected to be significant (i.e., potentially "unacceptable") for any complete exposure pathway) - skip to #6 and enter "YE" status code after explaining and/or referencing documentation justifying why the exposures (from each of the complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

\_\_\_\_\_ If yes (exposures could be reasonably expected to be "significant" (i.e., potentially "unacceptable") for any complete exposure pathway) - continue after providing a description (of each potentially "unacceptable" exposure pathway) and explaining and/or referencing documentation justifying why the exposures (from each of the remaining complete pathways) to "contamination" (identified in #3) are not expected to be "significant."

\_\_\_\_\_ If unknown (for any complete pathway) - skip to #6 and enter "IN" status code

**Rationale and Reference(s):**

5. Can the "significant" exposures (identified in #4) be shown to be within acceptable limits?

\_\_\_\_\_ If yes (all "significant" exposures have been shown to be within acceptable limits) - continue and enter "YE" after summarizing and referencing documentation justifying why all "significant" exposures to "contamination" are within acceptable limits (e.g., a site-specific Human Health Risk Assessment).

\_\_\_\_\_ If no (there are current exposures that can be reasonably expected to be "unacceptable") - continue and enter "NO" status code after providing a description of each potentially "unacceptable" exposure.

\_\_\_\_\_ If unknown (for any potentially "unacceptable" exposure) - continue and enter "IN" status code

**Rationale and Reference(s):**

<sup>4</sup> If there is any question on whether the identified exposures are "significant" (i.e., potentially "unacceptable") consult a human health Risk Assessment specialist with appropriate education, training and experience.

**Current Human Exposures Under Control**  
**Environmental Indicator (EI) RCRIS code (CA725)**  
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6. Check the appropriate RCRIS status codes for the Current Human Exposures Under Control EI event code (CA725), and obtain Supervisor (or appropriate Manager) signature and date on the EI determination below (and attach appropriate supporting documentation as well as a map of the facility):

X YE – Yes, "Current Human Exposures Under Control" has been verified. Based on a review of the Information contained in this EI Determination, "Current Human Exposures" are expected to be "Under Control" at the World Kitchen, LLC. facility,  
EPA ID # PAD004326542, located at 100 Eighth Street Charleroi, Pennsylvania 15022  
under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

\_\_\_\_ NO - "Current Human Exposures" are NOT "Under Control."

\_\_\_\_ IN - More information is needed to make a determination.

Completed by (signature) [Signature] Date 12/20/12  
(print) Elizabeth Bertha  
(title) Environmental Protection Specialist  
Supervisor (signature) [Signature] Date 12/20/12  
(print) Diane D. McDaniel  
(title) Engineering Manager  
(EPA Region or State) PA DEP

Locations where References may be found:

USEPA Region III  
Waste and Chemical Mgmt. Division  
1650 Arch Street  
Philadelphia, PA 19103

PADEP  
South West Regional Office  
400 Waterfront Drive  
Pittsburgh, PA 15212

Contact telephone and e-mail numbers

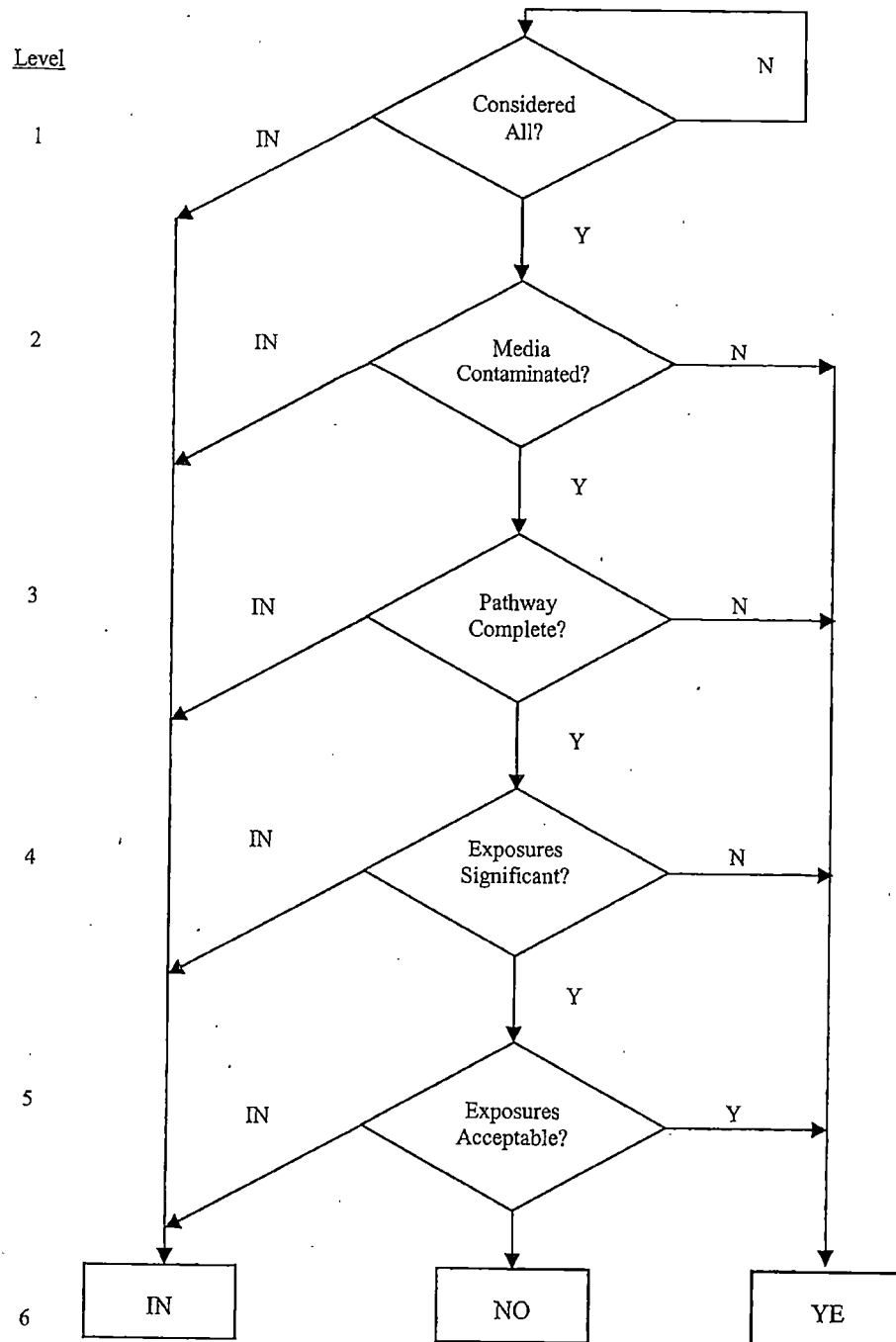
(signature) [Signature]  
(print) Diane D. McDaniel  
(title) Eng Manager

**FINAL NOTE: THE HUMAN EXPOSURES EI IS A QUALITATIVE SCREENING OF EXPOSURES AND THE DETERMINATIONS WITHIN THIS DOCUMENT SHOULD NOT BE USED AS THE SOLE BASIS FOR RESTRICTING THE SCOPE OF MORE DETAILED (E.G., SITE-SPECIFIC) ASSESSMENTS OF RISK.**



Charleroi, Pennsylvania 15022

## CURRENT HUMAN EXPOSURES UNDER CONTROL (CA725)



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**APPENDIX B**  
**SOIL ANALYTICAL RESULTS SUMMARIES**

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Table B-1  
Summary Soil Sample Analytical Results (July 1997)  
Charleroi, Pennsylvania Facility

				Analyte (mg/kg)						
				VOC (8260)	SVOC (8270)	8 RCRA Metals	PCB (8080)	TPH (418.1)	GRO	Field Observations
PADEP ACT 2 Exceed (soil) Guidelines				None	None	Yes	None	Yes		
Sample No.	Sample Depth (ft)	Sample Location								
BKS-1	8-11	Background	No	ND	PAH 0.064-0.74	0.32-20.6	Chlordane 0.35	43.9	NA	
AOC-1	3-4	Haz Waste Storage	No	ND	PAH 0.044-0.053	0.51-223	Aroclor-1254 0.064	NA	NA	
AOC-2	0-1	Bldg. 39	No	NA	PAH 0.140-7.7	NA	Chlordane 0.056	ND	ND	Staining PID-100 RRU
AOC-3A	8-10	Former UST	No	ND	PAH 0.048-0.10	0.42-142	NA	NA	NA	PID-4 RRU
AOC-3A2	14-18	Former UST	No	ND	PAH 0.042-0.056	0.19-106	NA	NA	NA	PID 4-100 RRU Fuel odors Stained Soil
AOC-4A	18-20	Tank 11 Area	No	ND	ND	9.7-107	NA	NA	NA	Stained Soil
AOC-4B	3-4	Tank 11 Area	No	Petroleum 0.005-0.046	PAH 0.063-0.25	0.79-274	ND	NA	NA	PID-4 RRU Odor, stained soil
AOC-4C	0-3	Tank 11 Area	Yes	Petroleum 0.36-2.4	PAH 0.39-16	0.66-720	ND	NA	NA	PID - 2-20 RRU black discoloration, odor
AOC-4C-ss	2.8-3	Tank 11 Area	No	ND	NA	1.1-318	NA	NA	NA	
AOC-4D	6-8	Tank 11 Area/Sump	No	ND	PAH 0.044-06	0.06-177	NA	NA	NA	Stained Soil
AOC-4D Dup	6-8	Tank 11 Area/Sump	No	ND	PAH 0.045-095	0.72-192	NA	NA	NA	
AOC-5A	25-28	Tank 16 Area	No	ND	ND	0.21-154	NA	NA	NA	PID - 3 RRU Stained soil at depth
AOC-5B	27-28	Tank 16 Area	No	ND	ND	6.9-132	NA	NA	NA	
AOC-6B	5-8	Machine Shop	No	ND	PAH 0.043-0.052	0.47-240	NA	NA	NA	

02005-037.004

Confidential

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B-1

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Charleroi, Pennsylvania

April 1999

Table D-3  
 Outfall and Surface Water Sampling Results (October 1997)  
 Corning Consumer Products Company  
 Charleroi Plant, Pennsylvania

Sample ID	Sample Type	Date Collected	Total Lead (µg/L)	Dissolved Lead (µg/L)	Total Cadmium (µg/L)	Dissolved Cadmium (µg/L)	Total Selenium (µg/L)	Dissolved Selenium (µg/L)
		Surface Water Guideline <sup>a</sup>	2.5 <sup>b</sup>	2.5 <sup>b</sup>	1 <sup>b</sup>	1 <sup>b</sup>	4.6	4.6
OUTFALL002	Stormwater	8/4/97	4800	NA	260	NA	24	NA
OUTFALL#2	Baseflow	10/22/97	883	5.5	47.6	1	9.9	6.3
OUT#2-STORM	Stormwater	10/24/97	1370	55.9	78	16.1	100	91.8
SW-1	Surface Water	8/22/97	2.1	NA	<10	NA	<2	NA
SW-2	Surface Water	8/22/97	<2	NA	<10	NA	<2	NA
SW-3	Surface Water	8/22/97	320	NA	<10	NA	<2	NA
SW-4	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-5	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-6	Surface Water	10/22/97	10.4	<0.80	NA	NA	NA	NA
SW-6 DUP	Surface Water	10/22/97	3.3	<0.80	NA	NA	NA	NA
SW-7	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-8	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-9	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-10	Surface Water	10/23/97	<0.80	<0.80	NA	NA	NA	NA

Note:

NA = Not Analyzed.

<sup>a</sup> From PA Code Chapter 16, adopted 10 March 1989.

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**APPENDIX D**  
**SURFACE WATER ANALYTICAL RESULTS SUMMARIES**

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Table B-4a  
Soil Sample Analytical Results  
Detected Volatile Organic Compounds (June 1998)  
Charleroi, Pennsylvania Facility

Analyte	Volatile Organic Compounds (mg/kg)			
	Benzene	Toluene	Trichloroethene	Xylenes (total)
PADEP ACT 2	200 <sup>a</sup>	10,000 <sup>a,b,c</sup>	970 <sup>a</sup>	10,000 <sup>a,b,c</sup>
Soil Guideline	230 <sup>b</sup> 13 <sup>c</sup>		1100 <sup>b</sup> 5 <sup>c</sup>	
Sample ID	Sample Matrix			
BLDG101/76-SB-1-02	Soil	0.002 J	0.004 J	0.002 J
BLDG101/76-SB-2-02	Soil		0.002 J	
BLDG101/76-SB-3-02	Soil		0.001 J	
BLDG101/76-SB-4-02	Soil		0.002 J	0.002 J
BLDG101/76-SB-5-02	Soil	0.001J		

Notes: Samples were analyzed for volatile organics by EPA Method 5350/8260.

<sup>a</sup> Act 2 Appendix A, Table3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> Act 2 Appendix A, Table3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (2-15 feet).

<sup>c</sup> Act 2 Appendix A, Table3.B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value.

J = estimated value. NA = not analyzed ND = not detected at, or above, the laboratory detection limit.

Sample ID suffix indicates collected depth interval, i.e. -02 indicates collected 0-2 feet below ground surface.

**Table B-3**  
**Soil Sample Analytical Results**  
**Metals (June 1998)**  
**Charleroi, PA Facility**

Analyte	Inorganic Compounds (mg/kg)	
	Arsenic	Lead
PADEP Act 2 Soil Guideline	53 <sup>a</sup>	1,000 <sup>a</sup>
	190,000 <sup>b</sup>	190,000 <sup>b</sup>
	150,000 <sup>c</sup>	190,000 <sup>c</sup>
Sample		
Bldg89-SB1-01	471	2270
Bldg89-SB1-05	53.5	343
Bldg89-SB-2-01	14.0	92.6
Bldg89-SB-3-01	8.8	122
Bldg89-SB-4-02	264	178
Bldg89-SB-4-05	84.2	180
Bldg89-SB-5-02	44.8	737
Tank6/CP-SB-1-02	37.2	
Tank6/CP-SB-2-02	51.4	
Tank6/CP-SB-3-02	10.6	
Tank6/CP-SB-4-02	16.6	

Notes: <sup>a</sup> Act 2 Appendix A, Table3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> Act 2 Appendix A, Table3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (2-15 feet).

<sup>c</sup> Act 2 Appendix A, Table3.B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J = estimated value. NA = not analyzed ND = not detected at, or above, the laboratory detection limit.

Sample ID suffix indicates collected depth interval, i.e. -02 indicates collected 0-2 feet below ground surface.

**Table C-7b**  
**Groundwater Screening Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania**

Analyte		Semi-Volatile Organic Compounds (µg/P)									
		naphthalene	2-methyl naphthalene	bis 2-ethyl hexylphthalate	Phenanthrene	Dibenzofuran	Fluorene	pyrene	benzo(a) anthracene	chrysene	diethyl phthalate
<b>PADEP Act 2 Guideline</b>		20,000 <sup>a</sup> 20 <sup>b</sup>	4,100 <sup>a</sup> 4,100 <sup>b</sup>	340 <sup>a</sup> 6 <sup>b</sup>	1,200 <sup>a</sup> 1,260 <sup>b</sup>	NE	190 <sup>a</sup> 190 <sup>b</sup>	13 <sup>a</sup> 13 <sup>b</sup>	14 <sup>a</sup> 3.6 <sup>b</sup>	1.8 <sup>a</sup> 1.8 <sup>b</sup>	1.8 <sup>a</sup> 1.8 <sup>b</sup>
<b>Sample No.</b>											
AOC-BKW	bkgnd	ND	ND	71	ND	ND	ND	ND	ND	ND	4 J
AOC-OF1	outfall	ND	ND	2 J	ND	ND	ND	ND	ND	ND	ND
AOC-6A	dwngnd	ND	ND	9 J	ND	ND	ND	ND	ND	ND	ND
AOC-09W	tanks	ND	ND	9 J	44	ND	66	24	4 J	5 J	ND
AOC-09W(dup)	tanks	ND	ND	41 J	280	67 J	270	150	18 J	20 J	ND
<b>AOC-12W</b>	<b>boiler</b>	<b>430</b>	<b>730</b>	<b>ND</b>	<b>110</b>	<b>20</b>	<b>9 J</b>	<b>8 J</b>	<b>2 J</b>	<b>2 J</b>	<b>ND</b>
Analyte		benzo(a) pyrene	acenaphthylene	acenaphthene	Dibenzo(a,h) Anthracene	Benzo(g,h,i) Perylene	Benzoic Acid	anthracene	fluoranthene	indeno (1,2,3-cd) pyrene	
<b>PADEP Act 2 Guideline</b>		3.8 <sup>a</sup> 0.2 <sup>b</sup>	3,900 <sup>a</sup> 3,900 <sup>b</sup>	3,500 <sup>a</sup> 3,500 <sup>b</sup>	0.36 <sup>b</sup> 0.5 <sup>a</sup>	0.26 <sup>a,b</sup>	410,000 <sup>a,b</sup>	43 <sup>a,b</sup>	270 <sup>a,b</sup>	3.5 <sup>b</sup> 6.2 <sup>a</sup>	
<b>Sample No.</b>											
AOC-BKW	bkgnd	ND	ND	ND	ND	ND	ND	ND	ND	ND	
AOC-OF1	outfall	ND	ND	ND	ND	ND	ND	ND	ND	ND	
AOC-6A	dwngnd	ND	ND	ND	ND	ND	ND	ND	ND	ND	
AOC-09W	tanks	ND	11	56	ND	ND	ND	24	ND	ND	
AOC-09W (dup)	tanks	ND	ND	220	ND	ND	ND	130	69 J	ND	
AOC-12W	boiler	1 J	ND	ND	ND	ND	ND	ND	ND	ND	

NOTES: Samples were analyzed for volatile organic compounds by EPA SW 846 Method 8260.

<sup>a</sup> ACT 2 Appendix A, Table 1. Medium-specific concentrations (MSCs) for Non-Residential, Non-use Aquifers.

<sup>b</sup> ACT 2 Appendix A, Table 1. Medium-specific concentrations (MSCs) for Non-Residential, Used Aquifers TDS <2500

J = estimated value

ND = not detected at, or above, the laboratory detection limit

NA = not analyzed

NR = results not received to date



Table C-7c  
Groundwater Screening Sample Analytical Results  
Total Metals (July 1997)  
Charleroi, Pennsylvania

Analyte	Metals (Total) (µg/P)						
	Arsenic	Barium	Cadmium	Chromium	Mercury	Lead	Selenium
PADEP Act 2 Guideline	NE	NE	NE	NE	NE	NE	NE
AOC-BKW bkgrnd	230	2,900	13	670	0.28	770	ND
AOC-OF1 outfall	42	1,000	29	58	ND	840	18
AOC-6A dwngnd	630	1,500	31	30	0.20	8,600	16
AOC-09W tanks	96	1,620	12	130	ND	1,700	0.70
AOC-09W (dup) tanks	52	990	ND	78	0.20	950	2.8
AOC-12W boiler	22.4	250	ND	54	ND	1,400	2.8

Analyte	Metals (Dissolved) (ug/l)					
	Arsenic	Barium	Chromium	Mercury	Lead	Selenium
Guideline	50,000 <sup>a</sup> 50 <sup>b</sup>	2,000,000 <sup>a</sup> 2,000 <sup>b</sup>	100,000 <sup>a</sup> 100 <sup>b</sup>	2,000 <sup>a</sup> 2 <sup>b</sup>	5,000 <sup>a</sup> 5 <sup>b</sup>	50,000 <sup>a</sup> 50 <sup>b</sup>
AOC-BKW1 bkgrnd	ND	ND	ND	ND	ND	ND
AOC-OF1 outfall	ND	ND	ND	ND	ND	15
AOC-6A dwngnd	22	180	ND	ND	250	12
AOC-09W tanks	5.7	130	ND	ND	ND	2.6
AOC-09W (dup) tanks	6.6	120	ND	ND	ND	3.3
AOC-12W boiler	3	86.1	ND	ND	790	ND

NOTES: Samples were analyzed for RCRA Metals by EPA SW 846 Method 6000 series.

<sup>a</sup> ACT 2 Appendix A, Table 2. Medium-specific concentrations (MSCs) for Non-Residential, Non-use Aquifers.

<sup>b</sup> ACT 2 Appendix A, Table 2. Medium-specific concentrations (MSCs) for Non-Residential, Used Aquifers, TDS < 2500

J = estimated value  
NA = not analyzed

NR = results not received to date

ND = not detected at, or above, the laboratory detection limit

NE = None Established for total metals in groundwater

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Table C-7a  
Groundwater Screening Sample Analytical Results  
Volatile Organic Compounds (July 1997)  
Charleroi, Pennsylvania

Analyte	Volatile Organic Compounds (µg/P)									
	Ethylbenzene	m/p xylene	o-xylene	Isopropyl Benzene	n-propyl benzene	1,3,5-trimethyl benzene	1,2,4-trimethyl benzene	sec-butyl benzene	p-isopropyl toluene	tetra-butyl benzene
PADEP Act 2 Guideline	70,000 <sup>a</sup> 700 <sup>b</sup>	180,000 <sup>a</sup> 10,000 <sup>b</sup>	180,000 <sup>a</sup> 10,000 <sup>b</sup>	5,200 <sup>a</sup> 52 <sup>b</sup>	NE	NE	NE	NE	NE	NE
Sample No.										
AOC-BKW bkgrnd	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AOC-OF1 outfall	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AOC-6A dwngd	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AOC-09W tanks	ND	ND	ND	21	25	ND	ND	33	ND	9
AOC-09W (dup) tanks	ND	ND	ND	51	67	ND	ND	100	ND	25
AOC-12W boiler	20	60	45	14	26	110	280	19	16	ND

NOTES: Samples were analyzed for volatile organic compounds by EPA SW 846 Method 8260.

<sup>a</sup> ACT 2 Appendix A, Table 1. Medium-specific concentrations (MSCs) for Non-Residential, Non-use Aquifers.

J = estimated value

NA = not analyzed

NE = None established

NR = results not received to date

ND = not detected at, or above, the laboratory detection limit

**Table C-7**  
**Summary Groundwater Screening**  
**Sample Analytical Results (July 1997)**  
**Charleroi, Pennsylvania**

			Analyte (µg/P)				Boring Field Observations
			VOC (8260)	SVOC (8270)	8 RCRA Metals (Total)	8 RCRA Metals (Dissolved)	
Exceed PADEP Act 2 Guidelines			No	Yes	No	No	
Sample No.	Location						
AOC-BKW	bkgrnd	No	ND	ND - 71	13 - 2,900	ND	
AOC-OF1	outfall	No	ND	ND	18 - 1,000	ND - 15	
AOC-6A	dwngnd	Yes	ND	ND	0.2 - 8,600	12 - 250	
AOC-09W	tanks	No	9 - 33	9 - 66	0.7 - 1,700	2.6 - 130	Odor, sheen
AOC-09W (dup)	tanks	Yes	25 - 100	18 - 280	2.8 - 990	3.3 - 120	Odor, sheen
AOC-12W	boiler	No	14 - 280	1 - 730	2.8 - 1,400	3 - 790	Odor, sheen

NOTES: AOC-9W (dup) exceeds the Non-Residential, Non-use aquifer MSC for anthracene.  
AOC-6A exceeds the Non-Residential, Non-use aquifer MSC for total lead.

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**APPENDIX B**  
**SOIL ANALYTICAL RESULTS SUMMARIES**

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**Table B-1**  
**Summary Soil Sample Analytical Results (July 1997)**  
**Charleroi, Pennsylvania Facility**

				Analyte (mg/kg)						
				VOC (8260)	SVOC (8270)	8 RCRA Metals	PCB (8080)	TPH (418.1)	GRO	Field Observations
PADEP ACT 2 Exceed (soil) Guidelines				None	None	Yes	None	Yes		
Sample No.	Sample Depth (ft)	Sample Location								
BKS-1	8-11	Background	No	ND	PAH 0.064-0.74	0.32-20.6	Chlordane 0.35	43.9	NA	
AOC-1	3-4	Haz Waste Storage	No	ND	PAH 0.044-0.053	0.51-223	Aroclor-1254 0.064	NA	NA	
AOC-2	0-1	Bldg. 39	No	NA	PAH 0.140-7.7	NA	Chlordane 0.056	ND	ND	Staining PID-100 RRU
AOC-3A	8-10	Former UST	No	ND	PAH 0.048-0.10	0.42-142	NA	NA	NA	PID-4 RRU
AOC-3A2	14-18	Former UST	No	ND	PAH 0.042-0.056	0.19-106	NA	NA	NA	PID 4-100 RRU Fuel odors Stained Soil
AOC-4A	18-20	Tank 11 Area	No	ND	ND	9.7-107	NA	NA	NA	Stained Soil
AOC-4B	3-4	Tank 11 Area	No	Petroleum 0.005-0.046	PAH 0.063-0.25	0.79-274	ND	NA	NA	PID-4 RRU Odor, stained soil
AOC-4C	0-3	Tank 11 Area	Yes	Petroleum 0.36-2.4	PAH 0.39-16	0.66-720	ND	NA	NA	PID - 2-20 RRU black discoloration, odor
AOC-4C-ss	2.8-3	Tank 11 Area	No	ND	NA	1.1-318	NA	NA	NA	
AOC-4D	6-8	Tank 11 Area/Sump	No	ND	PAH 0.044-06	0.06-177	NA	NA	NA	Stained Soil
AOC-4D Dup	6-8	Tank 11 Area/Sump	No	ND	PAH 0.045-0.095	0.72-192	NA	NA	NA	
AOC-5A	25-28	Tank 16 Area	No	ND	ND	0.21-154	NA	NA	NA	PID - 3 RRU Stained soil at depth
AOC-5B	27-28	Tank 16 Area	No	ND	ND	6.9-132	NA	NA	NA	
AOC-6B	5-8	Machine Shop	No	ND	PAH 0.043-0.052	0.47-240	NA	NA	NA	

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Charleroi, Pennsylvania

April 1999

**Table B-1 (Continued)**  
**Summary Soil Sample Analytical Results (July 1997)**  
**Charleroi, Pennsylvania Facility**

Sample No.	Sample Depth (ft)	Sample Location	Exceed Guidelines	VOC (8260)	SVOC (8270)	8 RCRA Metals	PCE (8080)	TPH (418.1)	GRO	Field Observations
				None	None	Yes	None	Yes		
AOC-7	4-6	Power House	No	ND	ND	0.58,235	ND	ND	NA	
AOC-8		Sump (sludge)	Yes	NA	NA	9.5-2870	NA	10,100	NA	Odor, staining
AOC-8 Dup		Sump (sludge)	Yes	NA	NA	10.7-2790	NA	9,550	NA	
AOC-9A	7-9	Former Tanks	No	ND	PAH 0.41-1.6	0.36-50.4	NA	NA	NA	PID - 17 RRU Odor, sheen, stained soil
AOC-9E	8-10	Former Tanks	No	petroleum 0.035-0.19	PAH 0.055-1.4	0.32-257	NA	NA	NA	PID - 2-14 RRU
AOC-9G	4-8	Former Tanks	No	ND	PAH 0.08-3	0.65-623	NA	NA	NA	
AOC-10A	16-17	Skimmer	No	petroleum 0.072-0.320	PAH 0.054-3.8	0.32-133	NA	NA	NA	PID - 0-150 RRU odors, sheen and discoloration at 16-20 feet
AOC-10B	28-30	Skimmer	No	ND	ND	7.8-127	NA	NA	NA	
AOC-12	8-12	Boiler Area	No	petroleum 0.08-0.34	Fuel Oil 0.26-1.3	0.27-78.1	ND	NA	NA	PID - 4-27 RRU Odor, sheen, discoloration
AOC-14	8-12	Chromic Acid	No	NA	NA	14.4-14.9 Chromium	NA	NA	NA	
AOC-16	2-3	Arsenic Acid	No	ND	PAH 0.047-0.76	0.33-72.6	NA	NA	NA	

NA = Sample Not Analyzed

NOTES: Samples were collected the week of 7 July 1997. Results are presented in Tables 3-2 (a-c) and 3-3 (a-d).  
Guidelines based on Non-Residential Soil and Non-use Aquifer under Pennsylvania Act 2.

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Charleroi, Pennsylvania

April 1999

**Table B-1a**  
**Soil Sample Analytical Results**  
**Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte			Volatile Organic Compounds (mg/kg)					
			Xylene (total)	Ethylbenzene	Toluene	Benzene	isopropyl benzene	n-propylbenzene
PADEP ACT 2 Guideline			10,000 <sup>a,b,c</sup>	10,000 <sup>a,b</sup> 4,600 <sup>c</sup>	10,000 <sup>a,b,c</sup>	200 <sup>a</sup> 230 <sup>b</sup> 13 <sup>c</sup>	480 <sup>a</sup> 550 <sup>b</sup> 3,700 <sup>c</sup>	10,000 <sup>a,b,c</sup>
Sample No.	Sample Depth (ft)	Sample Location						
BKS-1	8-11	Background	ND	ND	ND	ND	ND	ND
AOC-1	3-4	Haz Waste Storage	ND	ND	ND	ND	ND	ND
AOC-3A	8-10	Former UST	ND	ND	ND	ND	ND	ND
AOC-3A2	14-18	Former UST	ND	ND	ND	ND	ND	ND
AOC-4A	18-20	Tank 11 Area	ND	ND	ND	ND	ND	ND
AOC-4B	3-4	Tank 11 Area	.046	0.005	0.0053	ND	ND	ND
AOC-4C	0-3	Tank 11 Area	2.4	1.0	0.360 J	0.700	ND	ND
AOC-4D	6-8	Tank 11 Area/Sump	ND	ND	ND	ND	ND	ND
AOC-4D Dup	6-8	Tank 11 Area/Sump	ND	ND	ND	ND	ND	ND
AOC-4C-SS (8-21-97)		Tank 11 Area	ND	ND	ND	ND	ND	ND
AOC-5A	25-28	Tank 16 Area	ND	ND	ND	ND	ND	ND
AOC-5B	27-28	Tank 16 Area	ND	ND	ND	ND	ND	ND

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Charleroi, Pennsylvania

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**Table B-1b**  
**Soil Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte			Semi-Volatile Organic Compounds (mg/kg)							
			naphthalene	2-methyl naphthalene	acenaphthylene	Acenaphthene	dibenzofuran	fluorene	phenanthrene	anthracene
PADEP ACT 2 Guideline			110,000 <sup>a</sup> 190,000 <sup>b</sup> 5,000 <sup>c</sup>	10,000 <sup>a</sup> 10,000 <sup>b</sup> 10,000 <sup>c</sup>	170,000 <sup>a</sup> 190,000 <sup>b</sup> 4,400 <sup>c</sup>	170,000 <sup>a</sup> 190,000 <sup>b</sup> 4,300 <sup>c</sup>	100 <sup>a,b</sup>  0.5 <sup>c</sup>	110,000 <sup>a</sup> 190,000 <sup>b</sup> 380 <sup>c</sup>	190,000 <sup>a,b</sup>  11,000 <sup>c</sup>	190,000 <sup>a,b</sup>  230 <sup>c</sup>
Sample No.	Sample Depth (ft)	Sample Location								
BKS-1	8-11	Background	0.2 J	0.3 J	ND	ND	0.140 J	0.064 J	0.740	0.120 J
AOC-1	3-4	Haz Waste Storage	ND	ND	ND	ND	ND	ND	ND	ND
AOC-2 (7-11-97)	1-2	Blowdown, Pipe	0.28 J	0.25 J	ND	0.140 J	0.150 J	0.190 J	0.86 J	ND
AOC-3A	8-10	Former UST	ND	ND	ND	ND	ND	ND	0.068 J	ND
AOC-3A2	14-18	Former UST	ND	0.047 J	ND	ND	ND	ND	0.042 J	ND
AOC-4A	18-20	Tank 11 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-4B	3-4	Tank 11 Area	0.19 J	0.340 J	ND	ND	ND	0.063 J	0.250 J	0.064 J
AOC-4C	0-3	Tank 11 Area	0.52 J	1.2 J	0.59 J	ND	0.560 J	1.1	8.3	2.8 J
AOC-4D	6-8	Tank 11 Area/Sump	ND	ND	ND	ND	ND	ND	0.044 J	ND
AOC-4D Dup	6-8	Tank 11 Area/Sump	ND	ND	ND	ND	ND	ND	0.045 J	ND
AOC-4C-SS	2.8-3	Tank 11 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-5A	25-28	Tank 16 Area	ND	ND	ND	ND	ND	ND	ND	ND

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Charleroi, Pennsylvania

April 1999



**Table B-1a (Continued)**  
**Soil Sample Analytical Results**  
**Volatile Organic Compounds (1997)**  
**Charleroi, Pennsylvania Facility**

Analyte			Volatile Organic Compounds (mg/kg)					
			Xylene (total)	Ethylbenzene	Toluene	Benzene	isopropylbenzene	n-propylbenzene
<b>PADEP ACT 2 Guideline</b>			10,000 <sup>a,b,c</sup>	10,000 <sup>a,b</sup> 4,600 <sup>c</sup>	10,000 <sup>a,b,c</sup>	200 <sup>a</sup> 230 <sup>b</sup> 13 <sup>c</sup>	480 <sup>a</sup> 550 <sup>b</sup> 3,700 <sup>c</sup>	10,000 <sup>a,b,c</sup>
Sample No.	Sample Depth (ft)	Sample Location						
AOC-6B	5-8	Machine Shop	ND	ND	ND	ND	ND	ND
AOC-7	4-6	Power House	ND	ND	ND	ND	ND	ND
AOC-9A	7-9	Former Tanks	ND	ND	ND	ND	ND	ND
AOC-9E	8-10	Former Tanks	0.035	ND	0.038	ND	0.140	0.190
AOC-9G	4-8	Former Tanks	ND	ND	ND	ND	ND	ND
AOC-10A	16-17	Skimmer	0.320	0.072	ND	ND	ND	ND
AOC-10B	28-30	Skimmer	ND	ND	ND	ND	ND	ND
AOC-12	8-12	Boiler Area	0.340	0.080	0.004	ND	ND	ND
AOC-16	2-3	Arsenic Acid	ND	ND	ND	ND	ND	ND

NOTES: Samples were analyzed for volatile organics by EPA Method 8260.

<sup>a</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Subsurface Soil (2-15 feet).

<sup>c</sup> ACT 2 Appendix A, Table 3. B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J= estimated value    NA = not analyzed    ND = not detected at, or above, the laboratory detection limit.

**Table B-1b (Continued)**  
**Soil Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte			Semi -Volatile Organic Compounds (mg/kg)							
			naphthalene	2-methyl naphthalene	acenaphthylene	Acenaphthene	di benzofuran	fluorene	phenanthrene	anthracene
PADEP ACT 2 Guideline			110,000 <sup>a</sup>	10,000 <sup>a</sup>	170,000 <sup>a</sup>	170,000 <sup>a</sup>	100 <sup>a,b</sup>	110,000 <sup>a</sup>	190,000 <sup>a,b</sup>	190,000 <sup>a,b</sup>
			190,000 <sup>b</sup>	10,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>		190,000 <sup>b</sup>		
			5,000 <sup>c</sup>	10,000 <sup>c</sup>	4,400 <sup>c</sup>	4,300 <sup>c</sup>	0.5 <sup>c</sup>	380 <sup>c</sup>	11,000 <sup>c</sup>	230 <sup>c</sup>
Sample No.	Sample Depth (ft)	Sample Location								
AOC-5B	27-28	Tank 16 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-6B	5-8	Machine Shop	ND	ND	ND	ND	ND	ND	ND	ND
AOC-7	4-6	Power House	ND	ND	ND	ND	ND	ND	ND	ND
AOC-9A	7-9	Former Tanks	ND	ND	0.410 J	ND	ND	0.630 J	1.6 J	0.550 J
AOC-9E	8-10	Former Tanks	ND	1.4	ND	ND	ND	0.340 J	1.1	ND
AOC-9G	4-8	Former Tanks	0.080 J	0.110 J	ND	0.100 J	0.100 J	0.140 J	2	0.550
AOC-10A	16-17	Skimmer	ND	3.8	ND	ND	.360 J	.600	1.1	.058 J
AOC-10B	28-30	Skimmer	ND	ND	ND	ND	ND	ND	ND	ND
AOC-12	8-12	Boiler Area	0.430	1.3	ND	ND	ND	0.260 J	0.480	ND
AOC-16	2-3	Arsenic Acid	0.081 J	ND	ND	0.047 J	0.062 J	0.083 J	0.760	0.140 J

NOTES: Samples were analyzed for semi-volatile organics by EPA Method 8270.

<sup>a</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Subsurface Soil (2-15 feet).

<sup>c</sup> ACT 2 Appendix A, Table 3. B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J = estimated value    NA = not analyzed    ND = not detected at, or above, the laboratory detection limit

**Table B-1b (Continued)**  
**Soil Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

			Semi-Volatile Organic Compounds (mg/kg)							
Analyte			fluoranthene	pyrene	benzo (a) anthracene	Chrysene	bis(2 ethyl hexyl) phthalate	benzo (b) fluoranthene	benzo(k) fluoranthene	benzo(a) pyrene
PADEP ACT 2 Guideline			110,000 <sup>a</sup> 190,000 <sup>b</sup> 3,300 <sup>c</sup>	84,000 <sup>a</sup> 190,000 <sup>b</sup> 220 <sup>c</sup>	110 <sup>a</sup> 190,000 <sup>b</sup> 1,200 <sup>c</sup>	11,000 <sup>a</sup> 190,000 <sup>b</sup> 220 <sup>c</sup>	5,700 <sup>a</sup> 10,000 <sup>b</sup> 7,400 <sup>c</sup>	110 <sup>a</sup> 190,000 <sup>b</sup> 160 <sup>c</sup>	1,100 <sup>a</sup> 190,000 <sup>b</sup> 600 <sup>c</sup>	11 <sup>a</sup> 190,000 <sup>b</sup> 870 <sup>c</sup>
Sample No.	Sample Depth(ft)	Sample Location								
BKS-1	8-11	Background	0.630	0.640	0.380 J	0.410	0.072 J	0.380 J	0.340 J	0.330 J
AOC-1	3-4	Haz Waste Storage	ND	ND	ND	ND	0.053 J	0.054 J	ND	0.044 J
AOC-2	1-2	Blowdown Pipe	1.2	2.1	0.62	1.1	7.7	ND	ND	ND
AOC-3A	8-10	Former UST	0.10 J	0.096 J	0.066 J	0.072 J	ND	0.078 J	0.070J	0.070J
AOC-3A2	14-18	Former UST	0.056 J	ND	ND	ND	ND	ND	ND	ND
AOC-4A	18-20	Tank 11 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-4B	3-4	Tank 11 Area	0.330 J	0.260 J	0.170 J	0.150 J	ND	0.150 J	0.160 J	0.110 J
AOC-4C	0-3	Tank 11 Area	16	12	9.8	7	0.390 J	6	7.4	5.9
AOC-4D	6-8	Tank 11 Area/Sump	0.060 J	0.050 J	ND	ND	ND	ND	ND	0.055 J
AOC-4D Dup	6-8	Tank 11 Area/Sump	0.095 J	0.061 J	ND	ND	ND	ND	ND	0.068 J
AOC-5A	25-28	Tank 16 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-5B	27-28	Tank 16 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-6B	5-8	Machine Shop	0.052 J	ND	ND	ND	ND	ND	ND	ND
AOC-7	4-6	Power House	ND	ND	ND	ND	ND	ND	ND	ND

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Charleroi, Pennsylvania  
April 1999

**Table B-3**  
**Soil Sample Analytical Results**  
**Metals (June 1998)**  
**Charleroi, PA Facility**

Analyte	Inorganic Compounds (mg/kg)	
	Arsenic	Lead
PADEP Act 2	53 <sup>a</sup>	1,000 <sup>a</sup>
Soil Guideline	190,000 <sup>b</sup>	190,000 <sup>b</sup>
	150,000 <sup>c</sup>	190,000 <sup>c</sup>
Sample		
Bldg89-SB1-01	471	2270
Bldg89-SB1-05	53.5	343
Bldg89-SB-2-01	14.0	92.6
Bldg89-SB-3-01	8.8	122
Bldg89-SB-4-02	264	178
Bldg89-SB-4-05	84.2	180
Bldg89-SB-5-02	44.8	737
Tank6/CP-SB-1-02	37.2	
Tank6/CP-SB-2-02	51.4	
Tank6/CP-SB-3-02	10.6	
Tank6/CP-SB-4-02	16.6	

Notes: <sup>a</sup> Act 2 Appendix A, Table3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> Act 2 Appendix A, Table3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (2-15 feet).

<sup>c</sup> Act 2 Appendix A, Table3.B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value.

J = estimated value. NA = not analyzed ND = not detected at, or above, the laboratory detection limit.

Sample ID suffix indicates collected depth interval, i.e. -02 indicates collected 0-2 feet below ground surface.

**Table B-4a**  
**Soil Sample Analytical Results**  
**Detected Volatile Organic Compounds (June 1998)**  
**Charleroi, Pennsylvania Facility**

Analyte	Volatile Organic Compounds (mg/kg)			
	Benzene	Toluene	Trichloroethene	Xylenes (total)
PADEP ACT 2	200 <sup>a</sup>	10,000 <sup>a,b,c</sup>	970 <sup>a</sup>	10,000 <sup>a,b,c</sup>
Soil Guideline	230 <sup>b</sup>		1100 <sup>b</sup>	
	13 <sup>c</sup>		5 <sup>c</sup>	
Sample ID	Sample Matrix			
BLDG101/76-SB-1-02	Soil	0.002 J	0.004 J	0.002 J
BLDG101/76-SB-2-02	Soil		0.002 J	
BLDG101/76-SB-3-02	Soil		0.001 J	
BLDG101/76-SB-4-02	Soil		0.002 J	0.002 J
BLDG101/76-SB-5-02	Soil	0.001J		

Notes: Samples were analyzed for volatile organics by EPA Method 5350/8260.

<sup>a</sup> Act 2 Appendix A, Table3.A, Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> Act 2 Appendix A, Table3.A, Direct Contact Numeric Values for Non-Residential Surface Soil (2-15 feet).

<sup>c</sup> Act 2 Appendix A, Table3.B, Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value.

J = estimated value. NA = not analyzed ND = not detected at, or above, the laboratory detection limit.

Sample ID suffix indicates collected depth interval, i.e. -02 indicates collected 0-2 feet below ground surface.

**Table B-1c**  
**Soil Sample Analytical Results**  
**Metals (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte			Inorganic Compounds (mg/kg)							
			Arsenic	Barium	Cadmium	Chromium	Mercury	Lead	Selenium	Silver
PADEP Act 2 Guideline			53 <sup>a</sup> 190,000 <sup>b</sup> 150,000 <sup>c</sup>	190,000 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	1,400 <sup>a</sup> 190,000 <sup>b</sup> 38,000 <sup>c</sup>	1,100 <sup>a</sup> 190,000 <sup>b</sup> 51,000 <sup>c</sup>	240 <sup>a</sup> 190,000 <sup>b</sup> 10,000 <sup>c</sup>	1,000 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	14,000 <sup>a</sup> 190,000 <sup>b</sup> 26,000 <sup>c</sup>	220 <sup>a</sup> 190,000 <sup>b</sup> 84 <sup>c</sup>
Sample No.	Sample Depth(ft)	Sample Location								
AOC-8		Sump	373	2,870	9.5	51.5	24.5	296	197	ND
AOC-8 Dup		Sump	244	2,790	10.7	58.2	85.6	361	303	ND
AOC-9A	7-8	Former Tank	33.5	50.4	1	13.4	ND	19.9	0.36	ND
AOC-9E	8-10	Former Tank	14.2	257	ND	19.9	ND	115	0.32	1.2
AOC-9G	4-8	Former Tank	46.8	122	3.1	18.7	ND	623	0.65	2.3
AOC-10A	16-17	Skimmer	5.7	133	ND	20.6	ND	12.2	0.32	ND
AOC-10B	28-30	Skimmer	7.8	127	ND	17.7	ND	14.2	ND	ND
AOC-12	8-12	Boiler Area	2.5	78.1	ND	17.5	ND	13	0.27	ND
AOC-14	8-12	Chronic Acid	ND	ND	ND	14.9/14.4	ND	ND	ND	ND
AOC-16	2-3	Arsenic Acid	6.2	72.6	ND	25.3	ND	13	0.33	ND

NOTES: Samples were analyzed for RCRA Metals by EPA SW 846 Method 6000 series:

<sup>a</sup> ACT 2 Appendix A, Table 4.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> ACT 2 Appendix A, Table 4.A. Direct Contact Numeric Values for Non-Residential Subsurface Soil (2-15 feet).

<sup>c</sup> ACT 2 Appendix A, Table 4. B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J = estimated value    NA = not analyzed    ND = not detected at, or above, the laboratory detection limit

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Charleroi, Pennsylvania

April 1999

Table B-2  
Soil Sample Analytical Results  
Metals (April - June 1998)  
Charlertoi, PA Facility

Analyte	Inorganic Compounds (mg/kg)											
	Arsenic	Lead	Silver	Aluminum	Boron	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Iron
PADEP Act 2 Soil Guideline	53*	1,000*	220*	190,000*	190,000*	190,000*	18*	1,400*	170,000*	1,100*	190,000*	190,000*
	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*
	150,000*	190,000*	84,000*	NA	6,700*	190,000*	190,000*	38,000*	68,000*	51,000*	68,000*	NA
	20.2	541	4.6	7800	252	161	0.74	6.7	5.4	58.1	99.0	26900
BLDG10176-SB-1-02 (6/98)	33.1	445	4.1	6330	15.6	181	nd	7.5	5.7	111	59.4	61500
BLDG10176-SB-5-02 (6/98)	26.0	690	nd	13300	14.9	176	0.90	63.2	16.9	61.8	48.2	24900
AOC-6B-Sup	13.2	65.2	nd	9750	11.5	94.6	0.40	2.9	4.6	31.6	21.1	45700
Baghouse-Sup	38.0	293	nd	8400	29.6	99.5	0.70	16.2	5.0	13.0	18.9	14200
AOC-Bldg-113/89Sup <sup>(1)</sup>	489	1540	nd	13900	58.1	642	0.55	9.0	7.4	20.9	25.6	15200
NSSuprema-Sup	nd	39.0	nd	15900	31.4	89.9	0.68	1.5	8.7	25.1	16.3	22500
AOC-4C-West-Sup <sup>(2)</sup>	402	222	nd	9150	36.7	721	0.70	3.9	4.3	19.2	17.9	11900
AOC-4C-East-Sup <sup>(2)</sup>	345	305	nd	18700	18.9	263	0.77	5.9	10.2	23.4	28.6	23500
AOC-4B-Sup	22.7	20.0	nd	9250	12.6	166	nd	0.96	4.2	15.7	12.2	9530
AOC-Bldg-70/73Sup	15.7	62.6	nd	21600	39.8	305	3.3	nd	nd	13.0	6.2	2860
AOC-1-Sup	26.5	839	nd	11100	9.9	112	0.93	nd	9.1	15.1	19.1	19700
Tank6-Culletpad-Sup <sup>(1)</sup>	147	646	1.1	18900	16.9	1150	0.79	2.2	10	19.7	21.9	17900
Analyte	Inorganic Compounds (mg/kg)											
	Mercury	Manganese	Nickel	Antimony	Selenium	Tin	Thallium	Vanadium	Zinc	Cyanide, Free	Trivalent Chromium	Chromium VI
PADEP Act 2 Guideline	240*	130,000*	56,000*	1,100*	14,000*	190,000*	220*	160*	190,000*	56,000*	190,000*	14,000*
	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*	190,000*
	10,000*	NA	190,000*	27,000*	26,000*	190,000*	14,000*	190,000*	190,000*	190,000*	190,000*	190,000*
	0.09	3090	11.0	3.6	0.21	7.1	nd	44.3	206			
BLDG10176-SB-1-02 (6/98)	0.09	1730	63.4	8.1	0.60	12.5	nd	36.1	159			
BLDG10176-SB-5-02 (6/98)	0.11	757	110	nd	nd	nd	nd	28.0	137	nd	61.6	nd
AOC-6B-Sup	0.04	14500	18.5	nd	nd	nd	nd	112	95.7	nd	31.6	nd
AOC-9B-Sup	nd	222	12.4	nd	nd	nd	nd	16.8	468	nd	12.8	nd
Baghouse-Sup	0.06	344	15.0	15.1	nd	nd	nd	19.0	5490	nd	20.8	nd
AOC-Bldg-113/89Sup	nd	568	16.7	nd	nd	nd	nd	31.1	97.4	nd	25.2	nd
NSSuprema-Sup	0.48	356	12.7	27.4	22.4	nd	nd	15.2	1090	nd	19.0	nd
AOC-4C-West-Sup	0.30	175	19.8	185	nd	nd	nd	29.7	2000	nd	23.4	nd
AOC-4C-East-Sup	nd	1110	84.7	19.5	nd	nd	nd	11.8	124	nd	15.6	nd
AOC-4B-Sup	0.08	2170	39.9	nd	12.1	nd	nd	5.6	197	nd	13.1	nd
AOC-Bldg-70/73Sup	nd	488	12.8	nd	nd	nd	nd	22.7	61.9	nd	15.1	nd
AOC-1-Sup	nd	609	22.3	nd	nd	nd	nd	23.2	256	nd	19.6	nd
Tank6-Culletpad-Sup												

Notes: \* Act 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

\* Act 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (2-15 feet).

\* Act 2 Appendix A, Table 3.B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value.

J = estimated value NA = not analyzed ND = not detected at, or above, the laboratory detection limit.

All samples collected from 0-2 feet below ground surface.

(1) Additional Sampling June 1998 See Table.

Table D-3  
**Outfall and Surface Water Sampling Results (October 1997)**  
**Corning Consumer Products Company**  
**Charleroi Plant, Pennsylvania**

Sample ID	Sample Type	Date Collected	Total Lead (µg/L)	Dissolved Lead (µg/L)	Total Cadmium (µg/L)	Dissolved Cadmium (µg/L)	Total Selenium (µg/L)	Dissolved Selenium (µg/L)
		Surface Water Guideline <sup>a</sup>	2.5 <sup>b</sup>	2.5 <sup>b</sup>	1 <sup>b</sup>	1 <sup>b</sup>	4.6	4.6
OUTFALL002	Stormwater	8/4/97	4800	NA	260	NA	24	NA
OUTFALL#2	Baseflow	10/22/97	883	5.5	47.6	1	9.9	6.3
OUT#2-STORM	Stormwater	10/24/97	1370	55.9	78	16.1	100	91.8
SW-1	Surface Water	8/22/97	2.1	NA	<10	NA	<2	NA
SW-2	Surface Water	8/22/97	<2	NA	<10	NA	<2	NA
SW-3	Surface Water	8/22/97	320	NA	<10	NA	<2	NA
SW-4	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-5	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-6	Surface Water	10/22/97	10.4	<0.80	NA	NA	NA	NA
SW-6 DUP	Surface Water	10/22/97	3.3	<0.80	NA	NA	NA	NA
SW-7	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-8	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-9	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-10	Surface Water	10/23/97	<0.80	<0.80	NA	NA	NA	NA

Note:

NA = Not Analyzed

<sup>a</sup> From PA Code Chapter 16, adopted 10 March 1989.



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**APPENDIX D**  
**SURFACE WATER ANALYTICAL RESULTS SUMMARIES**

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**Table B-4b**  
**Soil Sample Analytical Results**  
**Detected Semi-Volatile Organic Compounds (June 1998)**  
**Charleroi, Pennsylvania Facility**

Analyte		Semi-Volatile Organic Compounds (mg/kg)									
		4-Methyl phenol	Naphthalene	2-Methyl naphthalene	Acenaphthylene	Acenaphthene	Dibenzo-furan	Fluorene	Phenanthrene	Anthracene	Fluoranthene
PADEP ACT 2 Guideline		920 <sup>a</sup>	110,000 <sup>a</sup>	10,000 <sup>a</sup>	170,000 <sup>a</sup>	170,000 <sup>a</sup>	100 <sup>a,b</sup>	110,000 <sup>a</sup>	190,000 <sup>a,b</sup>	190,000 <sup>a,b</sup>	110,000 <sup>a</sup>
		1,100 <sup>b</sup>	190,000 <sup>b</sup>	10,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>		190,000 <sup>b</sup>			190,000 <sup>b</sup>
		170 <sup>c</sup>	5,000 <sup>c</sup>	10,000 <sup>c</sup>	4,400 <sup>c</sup>	4,300 <sup>c</sup>	0.5 <sup>c</sup>	380 <sup>c</sup>	11,000 <sup>c</sup>	230 <sup>c</sup>	3,300 <sup>c</sup>
Sample ID		Sample Matrix									
BLDG101/76-SB-1-02	Soil	0.130 J	0.340 J	0.310 J	0.500	0.290 J	0.380	0.380	5.100	1.200	18.000
BLDG101/76-SB-2-02	Soil	-	0.090 J	0.048 J	-	-	0.160 J	-	0.038 J	0.047 J	0.160 J
BLDG101/76-SB-3-02	Soil	-	-	-	-	-	8.400 J	-	5.000 J	3.400 J	8.000 J
BLDG101/76-SB-4-02	Soil	-	0.190 J	0.250 J	-	-	0.210 J	-	0.140 J	0.060 J	0.350 J
BLDG101/76-SB-5-02	Soil	-	-	0.200 J	-	0.062 J	0.230 J	0.066 J	0.760	0.160 J	1.000
Analyte		Semi-Volatile Organic Compounds (mg/kg)									
		Pyrene	Benzo(a) anthracene	Chrysene	Benzo(b) fluoranthene	Benzo(k) fluoranthene	Benzo(a) pyrene	Indeno(1,2,3-cd) pyrene	Dibenzo(a,h) anthracene	Benzo(g,h,i) perylene	
PADEP ACT 2 Guideline		84,000 <sup>a</sup>	110 <sup>a</sup>	11,000 <sup>a</sup>	110 <sup>a</sup>	1,100 <sup>a</sup>	11 <sup>a</sup>	110 <sup>a</sup>	11 <sup>a</sup>	170,000 <sup>a</sup>	
		190,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>	
		220 <sup>c</sup>	1,200 <sup>c</sup>	220 <sup>c</sup>	160 <sup>c</sup>	600 <sup>c</sup>	870 <sup>c</sup>	190,000 <sup>c</sup>	230 <sup>c</sup>	180 <sup>c</sup>	
Sample ID		Sample Matrix									
BLDG101/76-SB-1-02	Soil	16.000	7.300	5.500	10.000	2.400	8.400	4.300	0.570	3.300	
BLDG101/76-SB-2-02	Soil	0.160 J	0.070 J	0.088 J	0.140 J	0.057 J	0.084 J	0.100 J	-	0.110 J	
BLDG101/76-SB-3-02	Soil	7.200 J	3.400 J	3.800 J	4.700 J	2.000 J	2.500 J	2.300 J	-	-	
BLDG101/76-SB-4-02	Soil	0.440	0.290 J	0.360 J	0.490	0.180 J	0.500	0.430	0.100 J	0.330 J	
BLDG101/76-SB-5-02	Soil	1.200	0.530	0.580	0.910	0.390	0.620	0.360 J	0.066 J	0.300 J	

Notes: Samples were analyzed for semi-volatile organics by EPA Method 8270.

<sup>a</sup> Act 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> Act 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (2-15 feet).

<sup>c</sup> Act 2 Appendix A, Table 3.B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value.

J = estimated value. NA = not analyzed ND = not detected at, or above, the laboratory detection limit.

Sample ID suffix indicates collected depth interval, i.e. -02 indicates collected 0-2 feet below ground surface.

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APPENDIX C  
GROUNDWATER ANALYTICAL RESULTS SUMMARIES

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To do for new projects:

- ☐ Start a efolder
  - ☐ Electronic communication notes
  - ☐ Data base update
  - ☐ SB, EI, FD, General electronic files
- ☐ Let PADEP know whats going on
- ☐ Let Company knows what is going on.
- ☐ Review
  - ☐ Make Cheat sheet for areas
  - ☐ Look at a Maps for where they tested
  - ☐ Google company
  - ☐ Pull Files
  - ☐ Look at all files on G Drive/ CD (take small notes on them)
  - ☐ Data base update

EIs If good:

- ☐ Paul sign
- ☐ Cover letter for EI for business.
- ☐ Call them and see if they would like it sent via email or mail
- ☐ Send state and Business a copy
- ☐ Data Base Update

Statement of Basis:

- ☐ Statement of Basis Draft

- Let the company look at
- Paul signs
- John sings

- ☐ Statement of Basis Memo for folder
- ☐ Statement of Basis Public notice (Harriet)
- ☐ Send signed Statement of Basis to Harriet
- ☐ Statement of Basis Blurb for Website (Gabe)
- ☐ Let local official know
- ☐ Let company know
- ☐ Data base update

- ☐ Salient Issue for SB in Newspaper
- ☐ Update Community Outreach Spread sheet

Final Decision Phase:

- ☐ Email Harriet the ID, Date FD signed and site name.
- ☐ Update fact sheet and email Gabe a copy of the signed FD
- ☐ Salient
- ☐ Email
  - ☐ Company
  - ☐ Local official
  - ☐ State
- ☐ Update Database
- ☐ Send file to file room and keep my own small file of my notes

**Table B-1b (Continued)**  
**Soil Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte			Semi-Volatile Organic Compounds (mg/kg)			Other		
			indeno(1,2,3-ca) pyrene	dibenzo(a,h) anthracene	benzo(g,h,i) perylene	polychlorinated biphenyls	Chlordane	TPH
PADEP ACT 2 Guideline			110 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	11 <sup>a</sup> 190,000 <sup>b</sup> 230 <sup>c</sup>	170,000 <sup>a</sup> 190,000 <sup>b</sup> 180 <sup>c</sup>	44-200 <sup>a</sup> 100,000 <sup>b</sup> 2.1-360 <sup>c</sup>	61 <sup>a</sup> 190,000 <sup>b</sup> 1,400 <sup>c</sup>	53 <sup>a</sup> 190,000 <sup>b</sup> 5000 <sup>c</sup>
Sample No.	Sample Depth(ft)	Sample Location						
BKS-1	8-11	Background	0.22 J	0.048	0.20 J	ND	0.350	43.9
AOC-1	3-4	Haz Waste Storage	ND	ND	ND	0.064 Aroclor-1254	ND	NA
AOC-2	1-2	Blowdown Pipe	0.64	ND	0.53	ND	0.056	ND
AOC-3A	8-10	Former UST	0.046 J	ND	0.048 J	NA	NA	NA
AOC-3A2	14-18	Former UST	ND	ND	ND	NA	NA	NA
AOC-4A	18-20	Tank 11 Area	ND	ND	ND	NA	NA	NA
AOC-4B	3-4	Tank 11 Area	0.110 J	ND	0.072 J	ND	NA	NA
AOC-4C	0-3	Tank 11 Area	4.4	1.1 J	2.6 J	ND	NA	NA
AOC-4D	6-8	Tank 11 Area/Sump	ND	ND	ND	NA	NA	NA
AOC-4D Dup	6-8	Tank 11 Area/Sump	ND	ND	ND	NA	NA	NA
AOC-5A	25-28	Tank 16 Area	ND	ND	ND	NA	NA	NA
AOC-5B	27-28	Tank 16 Area	ND	ND	ND	NA	NA	NA
AOC-6B	5-8	Machine Shop	0.043 J	ND	ND	NA	NA	NA
AOC-7	4-6	Power House	ND	ND	ND	ND	ND	ND

**Table B-1b (Continued)**  
**Soil Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

			Semi-Volatile Organic Compounds (mg/kg)							
Analyte			fluoranthene	pyrene	benzo (a) anthracene	Chrysene	bis(2 ethyl hexyl) phthalate	benzo (b) fluoranthene	benzo(k) fluoranthene	benzo(a) pyrene
PADEP ACT 2 Guideline			110,000 <sup>a</sup> 190,000 <sup>b</sup> 3,300 <sup>c</sup>	84,000 <sup>a</sup> 190,000 <sup>b</sup> 220 <sup>c</sup>	110 <sup>a</sup> 190,000 <sup>b</sup> 1,200 <sup>c</sup>	11,000 <sup>a</sup> 190,000 <sup>b</sup> 220 <sup>c</sup>	5,700 <sup>a</sup> 10,000 <sup>b</sup> 7,400 <sup>c</sup>	110 <sup>a</sup> 190,000 <sup>b</sup> 160 <sup>c</sup>	1,100 <sup>a</sup> 190,000 <sup>b</sup> 600 <sup>c</sup>	11 <sup>a</sup> 190,000 <sup>b</sup> 870 <sup>c</sup>
Sample No.	Sample Depth(ft)	Sample Location								
AOC-9A	7-9	Former Tanks	0.640 J	1.5 J	ND	ND	ND	ND	ND	ND
AOC-9E	8-10	Former Tanks	ND	0.100 J	0.055 J	0.086 J	ND	ND	ND	ND
AOC-9G	4-8	Former Tanks	3	1.7	1.6	1.6	ND	0.980	1.4	1.3
AOC-10A	16-17	Skimmer	ND	.054 J	ND	ND	ND	ND	ND	ND
AOC-10B	28-30	Skimmer	ND	ND	ND	ND	ND	ND	ND	ND
AOC-12	8-12	Boiler Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-16	2-3	Arsenic Acid	0.74	0.59	0.300 J	0.400 J	ND	0.330 J	0.280 J	0.260 J

NOTES: Samples were analyzed for semi-volatile organics by EPA Method 8270.

<sup>a</sup> ACT 2 Appendix A, Table 3.A.. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Subsurface Soil (2-15 feet).

<sup>c</sup> ACT 2 Appendix A, Table 3. B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J = estimated value    NA = not analyzed    ND = not detected at, or above, the laboratory detection limit

**Table B-1a**  
**Soil Sample Analytical Results**  
**Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte	Volatile Organic Compounds (mg/kg)					
	Xylene (total)	Ethylbenzene	Toluene	Benzene	isopropyl benzene	n-propylbenzene
PADEP ACT 2 Guideline	10,000 <sup>a,b,c</sup>	10,000 <sup>a,b</sup> 4,600 <sup>c</sup>	10,000 <sup>a,b,c</sup>	200 <sup>a</sup> 230 <sup>b</sup> 13 <sup>c</sup>	480 <sup>a</sup> 550 <sup>b</sup> 3,700 <sup>c</sup>	10,000 <sup>a,b,c</sup>
Sample No.	Sample Depth (ft)	Sample Location				
BKS-1	8-11	Background	ND	ND	ND	ND
AOC-1	3-4	Haz Waste Storage	ND	ND	ND	ND
AOC-3A	8-10	Former UST	ND	ND	ND	ND
AOC-3A2	14-18	Former UST	ND	ND	ND	ND
AOC-4A	18-20	Tank 11 Area	ND	ND	ND	ND
AOC-4B	3-4	Tank 11 Area	.046	0.005	0.0053	ND
AOC-4C	0-3	Tank 11 Area	2.4	1.0	0.360 J	0.700
AOC-4D	6-8	Tank 11 Area/Sump	ND	ND	ND	ND
AOC-4D Dup	6-8	Tank 11 Area/Sump	ND	ND	ND	ND
AOC-4C-SS (S-21-97)		Tank 11 Area	ND	ND	ND	ND
AOC-5A	25-28	Tank 16 Area	ND	ND	ND	ND
AOC-5B	27-28	Tank 16 Area	ND	ND	ND	ND

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**Table B-1 (Continued)**  
**Summary Soil Sample Analytical Results (July 1997)**  
**Charleroi, Pennsylvania Facility**

Sample No.	Sample Depth (ft)	Sample Location	Exceed Guidelines	VOC (8260)	SVOC (8270)	8 RCRA Metals	PCB (8080)	TPH (418-1)	GRO	Field Observations
				None	None	Yes	None	Yes		
AOC-7	4-6	Power House	No	ND	ND	0.58-235	ND	ND	NA	
AOC-8		Sump (sludge)	Yes	NA	NA	9.5-2870	NA	10,100	NA	Odor, staining
AOC-8 Dup		Sump (sludge)	Yes	NA	NA	10.7-2790	NA	9,550	NA	
AOC-9A	7-9	Former Tanks	No	ND	PAH 0.41-1.6	0.36-50.4	NA	NA	NA	PID - 17 RRU Odor, sheen, stained soil
AOC-9E	8-10	Former Tanks	No	petroleum 0.035-0.19	PAH 0.055-1.4	0.32-257	NA	NA	NA	PID - 2-14 RRU
AOC-9G	4-8	Former Tanks	No	ND	PAH 0.08-3	0.65-623	NA	NA	NA	
AOC-10A	16-17	Skimmer	No	petroleum 0.072-0.320	PAH 0.054-3.8	0.32-133	NA	NA	NA	PID - 0-150 RRU odors, sheen and discoloration at 16-20 feet
AOC-10B	28-30	Skimmer	No	ND	ND	7.8-127	NA	NA	NA	
AOC-12	8-12	Boiler Area	No	petroleum 0.08-0.34	Fuel Oil 0.26-1.3	0.27-78.1	ND	NA	NA	PID - 4-27 RRU Odor, sheen, discoloration
AOC-14	8-12	Chromic Acid	No	NA	NA	14.4-14.9 Chromium	NA	NA	NA	
AOC-16	2-3	Arsenic Acid	No	ND	PAH 0.047-0.76	0.33-72.6	NA	NA	NA	

NA = Sample Not Analyzed

NOTES: Samples were collected the week of 7 July 1997. Results are presented in Tables 3-2 (a-c) and 3-3 (a-d).  
Guidelines based on Non-Residential Soil and Non-use Aquifer under Pennsylvania Act 2.

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**Table B-1a (Continued)**  
**Soil Sample Analytical Results**  
**Volatile Organic Compounds (1997)**  
**Charleroi, Pennsylvania Facility**

Analyte			Volatile Organic Compounds (mg/kg)					
			Xylene (total)	Ethylbenzene	Toluene	Benzene	isopropyl benzene	n-propylbenzene
PADEP ACT 2 Guideline			10,000 <sup>a,b,c</sup>	10,000 <sup>a,b</sup> 4,600 <sup>c</sup>	10,000 <sup>a,b,c</sup>	200 <sup>a</sup> 230 <sup>b</sup> 13 <sup>c</sup>	480 <sup>a</sup> 550 <sup>b</sup> 3,700 <sup>c</sup>	10,000 <sup>a,b,c</sup>
Sample No.	Sample Depth (ft)	Sample Location						
AOC-6B	5-8	Machine Shop	ND	ND	ND	ND	ND	ND
AOC-7	4-6	Power House	ND	ND	ND	ND	ND	ND
AOC-9A	7-9	Former Tanks	ND	ND	ND	ND	ND	ND
AOC-9E	8-10	Former Tanks	0.035	ND	0.038	ND	0.140	0.190
AOC-9G	4-8	Former Tanks	ND	ND	ND	ND	ND	ND
AOC-10A	16-17	Skimmer	0.320	0.072	ND	ND	ND	ND
AOC-10B	28-30	Skimmer	ND	ND	ND	ND	ND	ND
AOC-12	8-12	Boiler Area	0.340	0.080	0.004	ND	ND	ND
AOC-16	2-3	Arsenic Acid	ND	ND	ND	ND	ND	ND

NOTES: Samples were analyzed for volatile organics by EPA Method 8260.

<sup>a</sup> ACT 2 Appendix A, Table 3.A.. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Subsurface Soil (2-15 feet).

<sup>c</sup> ACT 2 Appendix A, Table 3. B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J= estimated value    NA = not analyzed    ND = not detected at, or above, the laboratory detection limit.

Table B-1b  
Soil Sample Analytical Results  
Semi-Volatile Organic Compounds (July 1997)  
Charleroi, Pennsylvania Facility

Analyte			Semi-Volatile Organic Compounds (mg/kg)							
			naphthalene	2-methyl naphthalene	acenaphthylene	Acenaphthene	diobenzofuran	fluorene	phenanthrene	anthracene
PADEP ACT 2 Guideline			110,000 <sup>a</sup> 190,000 <sup>b</sup> 5,000 <sup>c</sup>	10,000 <sup>a</sup> 10,000 <sup>b</sup> 10,000 <sup>c</sup>	170,000 <sup>a</sup> 190,000 <sup>b</sup> 4,400 <sup>c</sup>	170,000 <sup>a</sup> 190,000 <sup>b</sup> 4,300 <sup>c</sup>	100 <sup>a,b</sup>  0.5 <sup>c</sup>	110,000 <sup>a</sup> 190,000 <sup>b</sup> 380 <sup>c</sup>	190,000 <sup>a,b</sup>  11,000 <sup>c</sup>	190,000 <sup>a,b</sup>  230 <sup>c</sup>
Sample No.	Sample Depth (ft)	Sample Location								
BKS-1	8-11	Background	0.2 J	0.3 J	ND	ND	0.140 J	0.064 J	0.740	0.120 J
AOC-1	3-4	Haz Waste Storage	ND	ND	ND	ND	ND	ND	ND	ND
AOC-2 (7-11-97)	1-2	Blowdown Pipe	0.28J	0.25J	ND	0.140J	0.150J	0.190J	0.86J	ND
AOC-3A	8-10	Former UST	ND	ND	ND	ND	ND	ND	0.068 J	ND
AOC-3A2	14-18	Former UST	ND	0.047 J	ND	ND	ND	ND	0.042 J	ND
AOC-4A	18-20	Tank 11 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-4B	3-4	Tank 11 Area	0.19 J	0.340 J	ND	ND	ND	0.063 J	0.250 J	0.064 J
AOC-4C	0-3	Tank 11 Area	0.52 J	1.2 J	0.59 J	ND	0.560 J	1.1	8.3	2.8 J
AOC-4D	6-8	Tank 11 Area/Sump	ND	ND	ND	ND	ND	ND	0.044 J	ND
AOC-4D Dup	6-8	Tank 11 Area/Sump	ND	ND	ND	ND	ND	ND	0.045 J	ND
AOC-4C-SS	2.8-3	Tank 11 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-5A	25-28	Tank 16 Area	ND	ND	ND	ND	ND	ND	ND	ND

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**Table B-1b (Continued)**  
**Soil Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte			Semi-Volatile Organic Compounds (mg/kg)							
			naphthalene	2-methyl naphthalene	acenaphthylene	Acenaphthene	diobenzofuran	fluorene	phenanthrene	anthracene
PADEP ACT 2			110,000 <sup>a</sup>	10,000 <sup>a</sup>	170,000 <sup>a</sup>	170,000 <sup>a</sup>	100 <sup>a,b</sup>	110,000 <sup>a</sup>	190,000 <sup>a,b</sup>	190,000 <sup>a,b</sup>
Guideline			190,000 <sup>b</sup>	10,000 <sup>b</sup>	190,000 <sup>b</sup>	190,000 <sup>b</sup>		190,000 <sup>b</sup>		
			5,000 <sup>c</sup>	10,000 <sup>c</sup>	4,400 <sup>c</sup>	4,300 <sup>c</sup>	0.5 <sup>c</sup>	380 <sup>c</sup>	11,000 <sup>c</sup>	230 <sup>c</sup>
Sample No.	Sample Depth (ft)	Sample Location								
AOC-5B	27-28	Tank 16 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-6B	5-8	Machine Shop	ND	ND	ND	ND	ND	ND	ND	ND
AOC-7	4-6	Power House	ND	ND	ND	ND	ND	ND	ND	ND
AOC-9A	7-9	Former Tanks	ND	ND	0.410 J	ND	ND	0.630 J	1.6 J	0.550 J
AOC-9E	8-10	Former Tanks	ND	1.4	ND	ND	ND	0.340 J	1.1	ND
AOC-9G	4-8	Former Tanks	0.080 J	0.110 J	ND	0.100 J	0.100 J	0.140 J	.2	0.550
AOC-10A	16-17	Skimmer	ND	3.8	ND	ND	.360 J	.600	1:1	.058 J
AOC-10B	28-30	Skimmer	ND	ND	ND	ND	ND	ND	ND	ND
AOC-12	8-12	Boiler Area	0.430	1.3	ND	ND	ND	0.260 J	0.480	ND
AOC-16	2-3	Arsenic Acid	0.081 J	ND	ND	0.047 J	0.062 J	0.083 J	0.760	0.140 J

NOTES: Samples were analyzed for semi-volatile organics by EPA Method 8270.

<sup>a</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Subsurface Soil (2-15 feet).

<sup>c</sup> ACT 2 Appendix A, Table 3. B. Soil to Groundwater: Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J = estimated value    NA = not analyzed    ND = not detected at, or above, the laboratory detection limit

Table B-1b (Continued)  
Soil Sample Analytical Results  
Semi-Volatile Organic Compounds (July 1997)  
Charleroi, Pennsylvania Facility

			Semi-Volatile Organic Compounds (mg/kg)							
Analyte			fluoranthene	pyrene	benzo (a) anthracene	Chrysene	bis(2 ethyl hexyl) phthalate	benzo (b) fluoranthene	benzo(k) fluoranthene	benzo(a) pyrene
PADEP ACT 2 Guideline			110,000 <sup>a</sup> 190,000 <sup>b</sup> 3,300 <sup>c</sup>	84,000 <sup>a</sup> 190,000 <sup>b</sup> 220 <sup>c</sup>	110 <sup>a</sup> 190,000 <sup>b</sup> 1,200 <sup>c</sup>	11,000 <sup>a</sup> 190,000 <sup>b</sup> 220 <sup>c</sup>	5,700 <sup>a</sup> 10,000 <sup>b</sup> 7,400 <sup>c</sup>	110 <sup>a</sup> 190,000 <sup>b</sup> 160 <sup>c</sup>	1,100 <sup>a</sup> 190,000 <sup>b</sup> 600 <sup>c</sup>	11 <sup>a</sup> 190,000 <sup>b</sup> 870 <sup>c</sup>
Sample No.	Sample Depth(ft)	Sample Location								
BKS-1	8-11	Background	0.630	0.640	0.380 J	0.410	0.072 J	0.380 J	0.340 J	0.330 J
AOC-1	3-4	Haz Waste Storage	ND	ND	ND	ND	0.053 J	0.054 J	ND	0.044 J
AOC-2	1-2	Blowdown Pipe	1.2	2.1	0.62	1.1	7.7	ND	ND	ND
AOC-3A	8-10	Former UST	0.10 J	0.096 J	0.066 J	0.072 J	ND	0.078 J	0.070J	0.070J
AOC-3A2	14-18	Former UST	0.056 J	ND	ND	ND	ND	ND	ND	ND
AOC-4A	18-20	Tank 11 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-4B	3-4	Tank 11 Area	0.330 J	0.260 J	0.170 J	0.150 J	ND	0.150 J	0.160 J	0.110 J
AOC-4C	0-3	Tank 11 Area	16	12	9.8	7	0.390 J	6	7.4	5.9
AOC-4D	6-8	Tank 11 Area/Sump	0.060 J	0.050 J	ND	ND	ND	ND	ND	0.055 J
AOC-4D Dup	6-8	Tank 11 Area/Sump	0.095 J	0.061 J	ND	ND	ND	ND	ND	0.068 J
AOC-5A	25-28	Tank 16 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-5B	27-28	Tank 16 Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-6B	5-8	Machine Shop	0.052 J	ND	ND	ND	ND	ND	ND	ND
AOC-7	4-6	Power House	ND	ND	ND	ND	ND	ND	ND	ND

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Charleroi, Pennsylvania

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**Table B-1b (Continued)**  
**Soil Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

			Semi-Volatile Organic Compounds (mg/kg)							
Analyte			fluoranthene	pyrene	benzo (a) anthracene	Chrysene	bis(2 ethyl hexyl) phthalate	benzo (b) fluoranthene	benzo(k) fluoranthene	benzo(a) pyrene
PADEP ACT 2 Guideline			110,000 <sup>a</sup> 190,000 <sup>b</sup> 3,300 <sup>c</sup>	84,000 <sup>a</sup> 190,000 <sup>b</sup> 220 <sup>c</sup>	110 <sup>a</sup> 190,000 <sup>b</sup> 1,200 <sup>c</sup>	11,000 <sup>a</sup> 190,000 <sup>b</sup> 220 <sup>c</sup>	5,700 <sup>a</sup> 10,000 <sup>b</sup> 7,400 <sup>c</sup>	110 <sup>a</sup> 190,000 <sup>b</sup> 160 <sup>c</sup>	1,100 <sup>a</sup> 190,000 <sup>b</sup> 600 <sup>c</sup>	11 <sup>a</sup> 190,000 <sup>b</sup> 870 <sup>c</sup>
Sample No.	Sample Depth(ft)	Sample Location								
AOC-9A	7-9	Former Tanks	0.640 J	1.5 J	ND	ND	ND	ND	ND	ND
AOC-9E	8-10	Former Tanks	ND	0.100 J	0.055 J	0.086 J	ND	ND	ND	ND
AOC-9G	4-8	Former Tanks	3	1.7	1.6	1.6	ND	0.980	1.4	1.3
AOC-10A	16-17	Skimmer	ND	.054 J	ND	ND	ND	ND	ND	ND
AOC-10B	28-30	Skimmer	ND	ND	ND	ND	ND	ND	ND	ND
AOC-12	8-12	Boiler Area	ND	ND	ND	ND	ND	ND	ND	ND
AOC-16	2-3	Arsenic Acid	0.74	0.59	0.300 J	0.400 J	ND	0.330 J	0.280 J	0.260 J

NOTES: Samples were analyzed for semi-volatile organics by EPA Method 8270.

<sup>a</sup> ACT 2 Appendix A, Table 3.A.. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Subsurface Soil (2-15 feet).

<sup>c</sup> ACT 2 Appendix A, Table 3. B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J = estimated value    NA = not analyzed    ND = not detected at, or above, the laboratory detection limit

Table B-1b (Continued)  
Soil Sample Analytical Results  
Semi-Volatile Organic Compounds (July 1997)  
Charleroi, Pennsylvania Facility

Analyte			Semi -Volatile Organic Compounds (mg/kg)			Other		
			indeno(1,2,3-ca) pyrene	dibenzo(a,h) anthracene	benzo(g,h,i) perylene	polychlorinated biphenyls	Chlordane	TPH
PADEP ACT 2 Guideline			110 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	11 <sup>a</sup> 190,000 <sup>b</sup> 230 <sup>c</sup>	170,000 <sup>a</sup> 190,000 <sup>b</sup> 180 <sup>c</sup>	44-200 <sup>a</sup> 100,000 <sup>b</sup> 2.1-360 <sup>c</sup>	61 <sup>a</sup> 190,000 <sup>b</sup> 1,400 <sup>c</sup>	53 <sup>a</sup> 190,000 <sup>b</sup> 5000 <sup>c</sup>
Sample No.	Sample Depth(ft)	Sample Location						
BKS-1	8-11	Background	0.22 J	0.048	0.20 J	ND	0.350	43.9
AOC-1	3-4	Haz Waste Storage	ND	ND	ND	0.064 Aroclor-1254	ND	NA
AOC-2	1-2	Blowdown Pipe	0.64	ND	0.53	ND	0.056	ND
AOC-3A	8-10	Former UST	0.046J	ND	0.048J	NA	NA	NA
AOC-3A2	14-18	Former UST	ND	ND	ND	NA	NA	NA
AOC-4A	18-20	Tank 11 Area	ND	ND	ND	NA	NA	NA
AOC-4B	3-4	Tank 11 Area	0.110 J	ND	0.072 J	ND	NA	NA
AOC-4C	0-3	Tank 11 Area	4.4	1.1 J	2.6 J	ND	NA	NA
AOC-4D	6-8	Tank 11 Area/Sump	ND	ND	ND	NA	NA	NA
AOC-4D Dup	6-8	Tank 11 Area/Sump	ND	ND	ND	NA	NA	NA
AOC-5A	25-28	Tank 16 Area	ND	ND	ND	NA	NA	NA
AOC-5B	27-28	Tank 16 Area	ND	ND	ND	NA	NA	NA
AOC-6B	5-8	Machine Shop	0.043 J	ND	ND	NA	NA	NA
AOC-7	4-6	Power House	ND	ND	ND	ND	ND	ND

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Charleroi, Pennsylvania

April 1999

**Table B-1c**  
**Soil Sample Analytical Results**  
**Metals (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte		Inorganic Compounds (mg/kg)							
		Arsenic	Barium	Cadmium	Chromium	Mercury	Lead	Selenium	Silver
PADEP Act 2 Guideline		53 <sup>a</sup> 190,000 <sup>b</sup> 150,000 <sup>c</sup>	190,000 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	1,400 <sup>a</sup> 190,000 <sup>b</sup> 38,000 <sup>c</sup>	1,100 <sup>a</sup> 190,000 <sup>b</sup> 51,000 <sup>c</sup>	240 <sup>a</sup> 190,000 <sup>b</sup> 10,000 <sup>c</sup>	1,000 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	14,000 <sup>a</sup> 190,000 <sup>b</sup> 26,000 <sup>c</sup>	220 <sup>a</sup> 190,000 <sup>b</sup> 84 <sup>c</sup>
Sample No.	Sample Location								
BKS-1	3-11 Background	9.8	20.6	ND	4	ND	ND	0.32	ND
AOC-1	3-4 Haz Waste Storage	21.8	223	ND	15.9	ND	169	0.51	ND
AOC-3A	8-10 Former UST	6.9	142	1.5	18.8	ND	89.9	0.42	ND
AOC-3A2	14-18 Former UST	2.5	106	ND	13.5	ND	15.6	0.19	ND
AOC-4A	18-20 Tank 11 Area	9.7	107	ND	15	ND	92.3	ND	ND
AOC-4B	3-4 Tank 11 Area	104	131	3.2	21	0.08	274	0.79	1.7
AOC-4C	0-3 Tank 11 Area	720	255	5.3	38.7	0.66	348	3.5	ND
AOC-4C-SS (8-21-97)	2.8 - 3 Tank 11 Area	75.8	318	1.1	19.1	ND	9.4	104	ND
AOC-4D	6-8 Tank 11 Area/Sump	6.6	177	ND	17.2	0.06	100	0.57	ND
AOC-4D (Dup)	6-8 Tank 11 Area/Sump	11.3	192	ND	17.5	ND	27.3	0.72	ND
AOC-5A	25-28 Tank 16 Area	7.6	154	ND	18.6	ND	12.2	0.21	ND
AOC-5B	27-28 Tank 16 Area	6.9	132	ND	16.2	ND	12.7	ND	ND
AOC-6B	5-8 Machine Shop	10.6	121	28.8	22.8	ND	240	0.47	ND
AOC-7	4-6 Power House	27.9	235	ND	21.4	ND	16.1	0.58	ND

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Charleroi, Pennsylvania  
April 1999

**Table B-1b (Continued)**  
**Soil Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte			Semi -Volatile Organic Compounds (mg/kg)			Other		
			indeno(1,2,3-ca) pyrene	dibenzo(a,h) anthracene	benzo(g,h,i) perylene	polychlorinated biphenyls	Chlordane	TPH
PADEP ACT 2 Guideline			110 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	11 <sup>a</sup> 190,000 <sup>b</sup> 230 <sup>c</sup>	170,000 <sup>a</sup> 190,000 <sup>b</sup> 180 <sup>c</sup>	44-200 <sup>a</sup> 100,000 <sup>b</sup> 2.1-360 <sup>c</sup>	61 <sup>a</sup> 190,000 <sup>b</sup> 1,400 <sup>c</sup>	53 <sup>a</sup> 190,000 <sup>b</sup> 5000 <sup>c</sup>
Sample No.	Sample Depth(ft)	Sample Location						
AOC-8		Sump	ND	ND	ND	NA	NA	10,100
AOC-8 Dup		Sump	ND	ND	ND	NA	NA	9,550
AOC-9A	7-9	Former Tanks	ND	ND	ND	NA	NA	NA
AOC-9E	8-10	Former Tanks	ND	ND	ND	NA	NA	NA
AOC-9G	4-8	Former Tanks	0.780	0.220 J	0.640	NA	NA	NA
AOC-10A	16-17	Skimmer	ND	ND	ND	NA	NA	NA
AOC-10B	28-30	Skimmer	0.059 J	0.053J	0.066J	NA	NA	NA
AOC-12	8-12	Boiler Area	ND	ND	ND	ND	NA	NA
AOC-16	2-3	Arsenic Acid	0.210 J	0.066 J	0.170 J	NA	NA	NA

NOTES: Samples were analyzed for semi-volatile organics by EPA Method 8270.

<sup>a</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Subsurface Soil (2-15 feet).

<sup>c</sup> ACT 2 Appendix A, Table 3. B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J = estimated value      NA = not analyzed      ND = not detected at, or above, the laboratory detection limit



**Table B-1b (Continued)**  
**Soil Sample Analytical Results**  
**Semi-Volatile Organic Compounds (July 1997)**  
**Charleroi, Pennsylvania Facility**

Analyte:			Semi -Volatile Organic Compounds (mg/kg)			Other		
			indeno(1,2,3-ca) pyrene	dibenzo(a,h) anthracene	benzo(g,h,i) perylene	polychlorinated biphenyls	Chlordane	TPH
PADEP ACT 2 Guideline			110 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	11 <sup>a</sup> 190,000 <sup>b</sup> 230 <sup>c</sup>	170,000 <sup>a</sup> 190,000 <sup>b</sup> 180 <sup>c</sup>	44-200 <sup>a</sup> 100,000 <sup>b</sup> 2.1-360 <sup>c</sup>	61 <sup>a</sup> 190,000 <sup>b</sup> 1,400 <sup>c</sup>	53 <sup>a</sup> 190,000 <sup>b</sup> 5000 <sup>c</sup>
Sample No.	Sample Depth(ft)	Sample Location						
AOC-8		Sump	ND	ND	ND	NA	NA	10,100
AOC-8 Dup		Sump	ND	ND	ND	NA	NA	9,550
AOC-9A	7-9	Former Tanks	ND	ND	ND	NA	NA	NA
AOC-9E	8-10	Former Tanks	ND	ND	ND	NA	NA	NA
AOC-9G	4-8	Former Tanks	0.780	0.220 J	0.640	NA	NA	NA
AOC-10A	16-17	Skimmer	ND	ND	ND	NA	NA	NA
AOC-10B	28-30	Skimmer	0.059 J	0.053J	0.066J	NA	NA	NA
AOC-12	8-12	Boiler Area	ND	ND	ND	ND	NA	NA
AOC-16	2-3	Arsenic Acid	0.210 J	0.066 J	0.170 J	NA	NA	NA

NOTES: Samples were analyzed for semi-volatile organics by EPA Method 8270.

<sup>a</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Surface Soil (0-2 feet).

<sup>b</sup> ACT 2 Appendix A, Table 3.A. Direct Contact Numeric Values for Non-Residential Subsurface Soil (2-15 feet).

<sup>c</sup> ACT 2 Appendix A, Table 3. B. Soil to Groundwater Numeric Values for Non-Residential, Non-Use Aquifers, Generic Value

J = estimated value    NA = not analyzed    ND = not detected at, or above, the laboratory detection limit

**Table B-1c**  
**Soil Sample Analytical Results**  
**Metals (July 1997)**  
**Charlertoi, Pennsylvania Facility**

Sample No.	Analyte	Inorganic Compounds (mg/kg)							
		Arsenic	Barium	Cadmium	Chromium	Mercury	Lead	Selenium	Silver
	PADEP Act 2 Guideline	53 <sup>a</sup> 190,000 <sup>b</sup> 150,000 <sup>c</sup>	190,000 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	1,400 <sup>a</sup> 190,000 <sup>b</sup> 38,000 <sup>c</sup>	1,100 <sup>a</sup> 190,000 <sup>b</sup> 51,000 <sup>c</sup>	240 <sup>a</sup> 190,000 <sup>b</sup> 10,000 <sup>c</sup>	1,000 <sup>a</sup> 190,000 <sup>b</sup> 190,000 <sup>c</sup>	14,000 <sup>a</sup> 190,000 <sup>b</sup> 26,000 <sup>c</sup>	220 <sup>a</sup> 190,000 <sup>b</sup> 84 <sup>c</sup>
Sample No.	Sample Location								
BKS-1	8-11 Background	9.8	20.6	ND	4	ND	ND	0.32	ND
AOC-1	3-4 Haz Waste Storage	21.8	223	ND	15.9	ND	169	0.51	ND
AOC-3A	8-10 Former UST	6.9	142	1.5	18.8	ND	89.9	0.42	ND
AOC-3A2	14-18 Former UST	2.5	106	ND	13.5	ND	15.6	0.19	ND
AOC-4A	18-20 Tank 11 Area	9.7	107	ND	15	ND	92.3	ND	ND
AOC-4B	3-4 Tank 11 Area	104	131	3.2	21	0.08	274	0.79	1.7
AOC-4C	0-3 Tank 11 Area	720	255	5.3	38.7	0.66	348	3.5	ND
AOC-4C-SS (8-21-97)	2.8-3 Tank 11 Area	75.8	318	1.1	19.1	ND	9.4	104	ND
AOC-4D	6-8 Tank 11 Area/Sump	6.6	177	ND	17.2	0.06	100	0.57	ND
AOC-4D (Dup)	6-8 Tank 11 Area/Sump	11.3	192	ND	17.5	ND	27.3	0.72	ND
AOC-5A	25-28 Tank 16 Area	7.6	154	ND	18.6	ND	12.2	0.21	ND
AOC-5B	27-28 Tank 16 Area	6.9	132	ND	16.2	ND	12.7	ND	ND
AOC-6B	5-8 Machine Shop	10.6	121	28.8	22.8	ND	240	0.47	ND
AOC-7	4-6 Power House	27.9	235	ND	21.4	ND	16.1	0.58	ND

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Charlertoi, Pennsylvania

April 1999

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**Table C-1**  
**Quarterly Groundwater Monitoring Program**  
**Analytical Results Summary**  
**Corning Consumer Products Company**  
**Charleroi, Pennsylvania, Plant**  
**(CPA-MW-01 - Upgradient)**

SAMPLE DATE:	8/22/97	1/6/98	4/15/98	7/22/98	10/21/98	1/26/99	PADEP ACT 2 Standard
<b>VOCs Method 8260 (µg/L)</b>							
Carbon disulfide	ND	6	NA	<0.5	<0.5	<0.5	4,100*
1,2,3-Trichlorobenzene	0.5	NA	<0.5	<0.5	<0.5	<0.5	NE
Chloroform	<0.5	<0.5	0.65	<0.5	<0.5	<0.5	
<b>SVOCs Method 8270 (µg/L)</b>							
bis(2-ethyl hexyl)phthalate	12	<11	<10	7.1	64	<10	340*
Phenanthrene	1.1	<11	<10	<10	<10	<10	1,200*
<b>Soluble Metals (µg/L)</b>							
Aluminum	NA	NA	<200	<20	360	<200	200*
Arsenic	170	109	32	56	47	65	50,000*
Barium	580	1,160	260	260	230	270	2,000,000*
Beryllium	NA	NA	<5	<5	<5	<5	4,000*
Boron	NA	NA	190	250	280	310	600,000*
Cadmium	ND	<10	<0.5	<0.5	<0.5	<0.5	5,000*
Chromium	ND	126	<20	<20	<20	<20	100,000*
Trivalent Chromium	NA	NA	<20	<20	<20	<20	100,000*
Chromium VI	NA	NA	<20	<20	<20	<20	510,000*
Cobalt	NA	NA	<20	<20	<20	<20	6,100,000*
Copper	NA	NA	<20	<20	<20	<20	1,000,000*
Cyanide	NA	NA	<10	<10	<10	<10	200,000*
Iron	NA	NA	660	4200	4600	4200	300*
Manganese	NA	NA	1,500	1,900	1,900	1,600	50*
Mercury	ND	<0.2	<0.2	<0.2	<0.2	<0.2	2,000*
Lead	ND	144	<2	<2	<2	<2	5,000*
Nickel	NA	NA	<20	<20	<20	<20	100,000*
Selenium	ND	<10	<2	<2	<2	<2	50,000*
Antimony	NA	NA	<100	<100	<100	<100	6,000*
Silver	ND	<10	<10	<10	<10	<10	100,000*
Tin	NA	NA	<100	<100	<20	<10	61,000,000*
Thallium	NA	NA	<500	<10	<10	<2	2,000*
Vanadium	NA	NA	<10	<10	<10	<10	5,800*
Zinc	NA	NA	<10	<10	<10	<10	2,000,000*
Chloride	NA	NA	24,400	23,200	24,100	22,600	250,000*
Fluoride	NA	NA	670	610	620	370	2,000*
Nitrate, as N	NA	NA	<100	<100	<100	<100	10,000,000*
Nitrite, as N	NA	NA	<20	<20	<20	<20	1,000,000*
Sulfate	NA	NA	54,200	43,100	75,800	35,400	500,000,000*
<b>Total Metals (µg/L)</b>							
Arsenic	220	NA	NA	NA	NA	NA	-
Barium	2,000	NA	NA	NA	NA	NA	-
Cadmium	ND	NA	NA	NA	NA	NA	-
Chromium	200	NA	NA	NA	NA	NA	-
Mercury	0.24	NA	NA	NA	NA	NA	-
Lead	270	NA	NA	NA	NA	NA	-
Selenium	ND	NA	NA	NA	NA	NA	-
Silver	ND	NA	NA	NA	NA	NA	-
<b>Pesticides/PCBs (µg/L)</b>							
Water Level (TOIC)	16.88	16.35	17.35	16.02	15.74	16.72	
Well TD (ft bgs)	40	40	40	40	40	40	
Reference Elevation (FMSL)	762.95	762.95	762.95	762.95	762.95	762.95	
Water Elevation (FMSL)	746.07	746.60	745.60	746.93	747.21	746.23	

Notes: Samples were analyzed for volatile organic compounds (VOCs) by EPA SW 826 Method 8260, SVOCs by Method 8270, RCRA and Act 2 Metals by Series 6000/7000 (ICP and AA), Pesticides/PCBs by EPA Method 8210.  
 \*ACT 2 Appendix A, Table 1. Medium-specific concentrations (MSCs) for Non-Residential, Non-Use Aquifers.  
 I = Estimated value. NA = Not analyzed. NE = None established. - = Not applicable. B = present in blank sample.  
 ND = Not detected after above the laboratory detection limit.



Quarterly Groundwater Monitoring Program  
Analytical Results Summary  
Corning Consumer Products Company  
Charleroi, Pennsylvania, Plant  
(CPA-MW-02 - Ungradient)

SAMPLE DATE:	8/22/97	1/7/98	4/15/98	7/22/98	10/21/98	1/26/99	PADEP ACT 2 Standard
VOCs Method 8260 (µg/L)							
Methylene chloride	ND	0.6	<1.0	<0.5	<0.5	<0.5	500*
Chloroform	ND	<0.5	7.2	<0.5	<0.5	<0.5	1,000*
SVOCs Method 8270 (µg/L)							
bis(2-ethyl hexyl)phthalate	40	<11	<10	<10	21	<10	340*
Phenanthrene	2 J	<11	<10	<10	<10	<10	1,200*
Soluble Metals (µg/L)							
Aluminum	NA	NA	<200	<200	<200	<200	200*
Arsenic	74	<10	<2	<2	<2	<2	50,000*
Barium	360	117	84	66	61	52	2,000,000*
Beryllium	NA	NA	<5	<5	<5	<5	4,000*
Boron	NA	NA	210	270	330	300	600,000*
Cadmium	ND	<10	<0.5	<0.5	<0.5	<0.5	5,000*
Chromium	ND	<20	<20	<20	<20	<20	100,000*
Trivalent Chromium	NA	NA	<20	<20	<20	<20	100,000*
Chromium VI	NA	NA	<20	<20	<20	<20	510,000*
Cobalt	NA	NA	<20	<20	<20	<20	6,100,000*
Copper	NA	NA	<20	<20	<20	<20	1,000,000*
Cyanide	NA	NA	<10	1700	<10	<10	200,000*
Iron	NA	NA	<30	<30	130	<30	300*
Manganese	NA	NA	83	170	120	56	50*
Mercury	ND	<0.20	<0.20	<0.20	<0.20	<0.20	2,000*
Lead	ND	10.9	<2	<2	<2	<2	5,000*
Nickel	NA	NA	<20	<20	<20	<20	100,000*
Selenium	ND	<10	<2	<2	<2	<2	50,000*
Antimony	NA	NA	<100	<100	<100	<100	6,000*
Silver	ND	<10	<10	<10	<10	<10	100,000*
Tin	NA	NA	<100	<100	<20	<100	61,000,000*
Thallium	NA	NA	<500	<10	<10	<2	2,000*
Vanadium	NA	NA	<10	<10	<10	<10	5,800*
Zinc	NA	NA	<10	<10	<10	<10	2,000,000*
Chloride	NA	NA	23,900	24,500	26,100	30,000	250,000*
Fluoride	NA	NA	760	640	750	630	2,000*
Nitrate, as N	NA	NA	900	1800	3800	3000	10,000,000*
Nitrite, as N	NA	NA	<20	53	41	21	1,000,000*
Sulfate	NA	NA	123,000	103,000	119,000	97,100	500,000,000*
Total Metals (µg/L)							
Arsenic	32	NA	NA	NA	NA	NA	-
Barium	470	NA	NA	NA	NA	NA	-
Cadmium	ND	NA	NA	NA	NA	NA	-
Chromium	35	NA	NA	NA	NA	NA	-
Mercury	ND	NA	NA	NA	NA	NA	-
Lead	51	NA	NA	NA	NA	NA	-
Selenium	ND	NA	NA	NA	NA	NA	-
Silver	ND	NA	NA	NA	NA	NA	-
Pesticides/PCBs (µg/L)							
Water Level (TOIC)	5.86	5.45	4.76	5.15	5.76	4.75	-
Well TD (ft bgs)	40	40	40	40	40	40	-
Reference Elevation (FMSL)	761.75	761.75	761.75	761.75	761.75	761.75	-
Water Elevation (FMSL)	755.89	765.30	756.99	756.60	755.99	757.00	-

Notes: Samples were analyzed for volatile organic compounds (VOCs) by EPA SW 846 Method 8260, SVOC by Method 8270, RCRA and Act 2 Metals by Series 6000/7000 (ICP and AA), Pesticide/PCBs by EPA Method 8080  
 \* ACT 2 Appendix A, Table 1. Medium-specific concentrations (MSCs) for Non-Residential, Non-Use Aquifers  
 J = Estimated value NA = Not analyzed NE = Not established - = Not applicable B = present in blank sample  
 ND = Not detected at/or above the laboratory detection limit

**Table 2**  
**Surface Water Analytical Results (ug/l)**  
**Charleroi, Pennsylvania**

	Metals (Total) (ug/l)						VOCs	SVOCs
	Arsenic	Barium	Cadmium	Chromium	Mercury	Lead		bis (2-Ethylhexyl) phthalate
<b>Surface Water Guideline <sup>a</sup></b>	<b>50<sup>b</sup></b>	<b>NE</b>	<b>1<sup>b</sup></b>	<b>10<sup>b</sup></b>	<b>0.012</b>	<b>2.5<sup>b</sup></b>		<b>2</b>
<b>Sample No.</b>								
CPA-SW-01	ND	55	ND	ND	ND	ND	ND	3J
CPA-SW-02	ND	ND	ND	ND	ND	ND	ND	6J
CPA-SW-02D (Dup)	ND	51	ND	ND	ND	ND	ND	81
CPA-SW-03	20	97	ND	ND	ND	320	ND	19

NOTES: Samples were analyzed for RCRA Metals by EPA SW 846 Method 6000 series.

<sup>a</sup> Pennsylvania Water Quality Standards, Pennsylvania Code Title 25, Chapter 16

<sup>b</sup> Criteria for a water hardness=100.

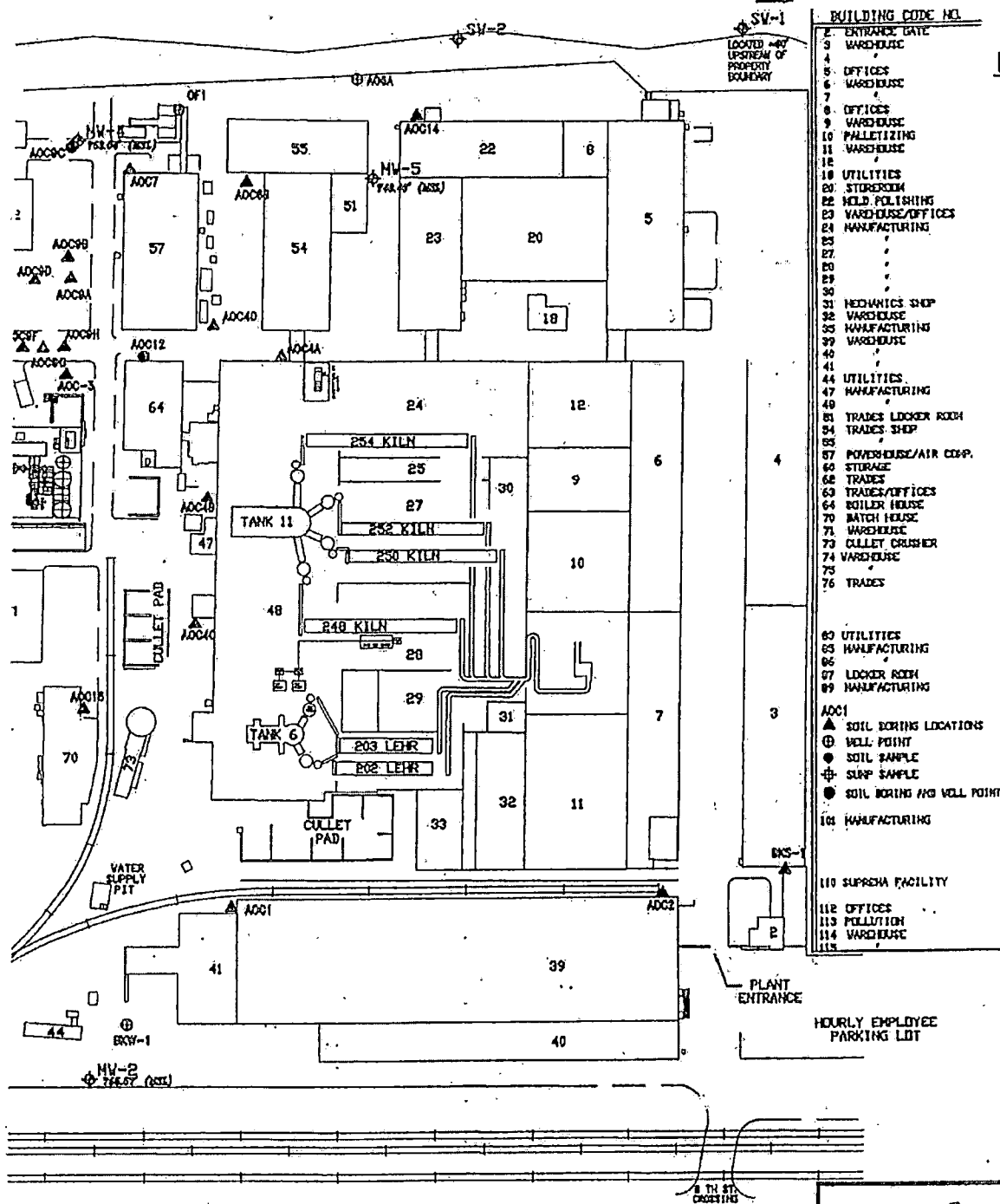
<sup>c</sup> Criteria for hexavalent Chromium

J= estimated value

NE= No criteria established

NA= not analyzed

blank or ND= not detected at, or above, the laboratory detection limit



## EXPLANATION

### BUILDING CODE NO.

- 2. ENTRANCE GATE
- 3. WAREHOUSE
- 4. OFFICES
- 5. WAREHOUSE
- 6. OFFICES
- 7. WAREHOUSE
- 8. OFFICES
- 9. WAREHOUSE
- 10. PALLETIZING
- 11. WAREHOUSE
- 12. UTILITIES
- 13. STOREROOM
- 14. HOLD. POLISHING
- 15. WAREHOUSE/OFFICES
- 16. MANUFACTURING
- 17. "
- 18. "
- 19. "
- 20. "
- 21. "
- 22. "
- 23. MECHANICS SHOP
- 24. WAREHOUSE
- 25. MANUFACTURING
- 26. WAREHOUSE
- 27. "
- 28. UTILITIES
- 29. MANUFACTURING
- 30. "
- 31. TRADES LOCKER ROOM
- 32. TRADES SHOP
- 33. "
- 34. POWERHOUSE/AIR COMP.
- 35. STORAGE
- 36. TRADES
- 37. TRADES/OFFICES
- 38. BOILER HOUSE
- 39. BATCH HOUSE
- 40. WAREHOUSE
- 41. CULLET CRUSHER
- 42. WAREHOUSE
- 43. TRADES
- 44. "
- 45. UTILITIES
- 46. MANUFACTURING
- 47. "
- 48. LOCKER ROOM
- 49. MANUFACTURING
- 50. SOIL BORING LOCATIONS
- 51. WELL POINT
- 52. SOIL SAMPLE
- 53. SUMP SAMPLE
- 54. SOIL BORING AND WELL POINT
- 55. MANUFACTURING
- 56. SUPREMA FACILITY
- 57. OFFICES
- 58. POLLUTION
- 59. WAREHOUSE
- 60. "

SCALE: 1" = 120'

**WESTON**  
MANAGERS DESIGNERS/CONSULTANTS

215 Union Boul-  
Suite  
Lakewood, CO 8  
(303) 980-1

CORNING GLASS WORKS-CHARLEROI PLAN  
CHARLEROI, PENNSYLVANIA  
GENERAL PLANT LAYOUT

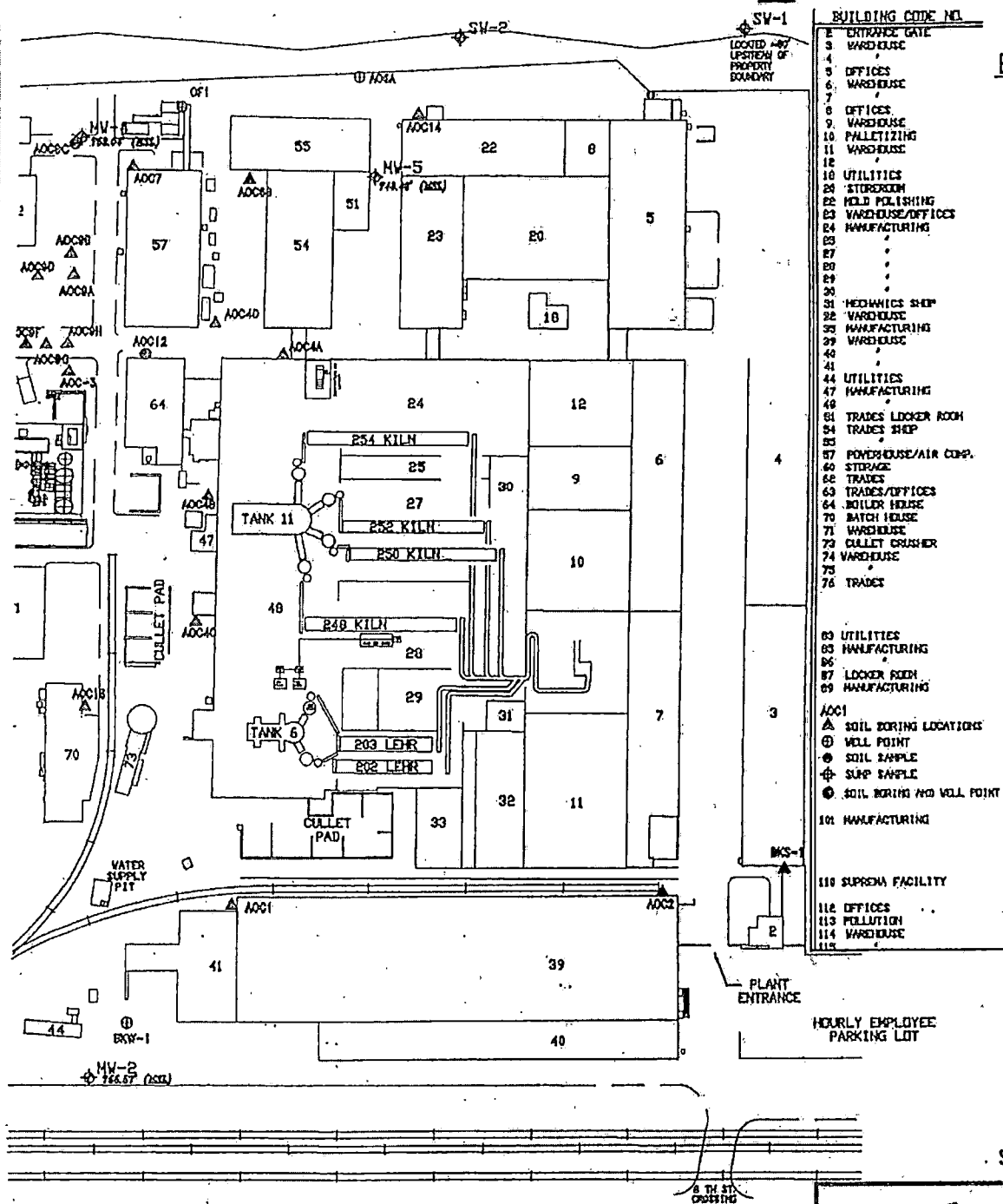
FIGURE 1

SURFACE WATER LOCATIONS

**Table 1**  
**General Data Table**  
**Corning Vitro Corporation**  
**Antech, Ltd. Project No. 97-3157**  
**NPDES Water Characterization, Stormwater Baseline Sampling**  
**Charleroi Plant**

Parameter	Analytical Method	Units	9708-0417 Outfall 001 (8/4/97)	9708-0418 Outfall 002 (8/4/97)	9708-0419 Outfall 003 (8/4/97)	9708-0420 Method Blank (8/4/97)
Total Metal:						
Silver (Total)	200.7 <sup>(1)</sup>	mg/l	<0.010	<0.010	<0.010	<0.010
Arsenic (Total)	206.2 <sup>(1)</sup>	mg/l	<0.0010	0.027	0.0020	<0.0010
Barium (Total)	200.7 <sup>(1)</sup>	mg/l	0.040	0.080	0.037	<0.020
Cadmium (Total)	200.7 <sup>(1)</sup>	mg/l	<0.0050	0.26	<0.0050	<0.0050
Chromium (Total)	200.7 <sup>(1)</sup>	mg/l	<0.010	<0.010	<0.010	<0.10
Mercury (Total)	245.2 <sup>(1)</sup>	mg/l	<0.0002	<0.0002	<0.0002	<0.0002
Lead (Total)	200.7 <sup>(1)</sup>	mg/l	<0.10	4.8	<0.10	<0.10
Selenium (Total)	270.2 <sup>(1)</sup>	mg/l	0.0040	0.024	0.0020	<0.0010

<sup>(1)</sup>U.S. Environmental Protection Agency, 1983, Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Environmental Monitoring and Support Laboratory, Cincinnati, Ohio.







will be used to document visual verification of the system at the facility. This field mapping may be supplemented by the conduct of dye tests from the most upstream points of drains identified to feed into Outfall No. 2. The dye test would be conducted if the field mapping/verification differs from the drainage system maps, or to resolve uncertainty in the field observations.

#### *Task 4 - Identification Potential Sources Lead (contingent)*

Should the results of Task 1 - Outfall No. 2 Water Quality Reassessment, or Task 2 - Surface Water Quality Assessment on the Monongahela River, confirm the elevated lead levels, Corning would commence the identification of potential sources of lead from current and historical operations at the facility, which may come in contact with discharge water and stormwater from facility operations. Corning is taking into consideration construction materials of the drainage system, raw material use, imperfect products (cullet) storage, and past operations. If the elevated levels of lead are confirmed during Task 1, the evaluation of individual drainage segments of the Outfall No. 2 drainage system (Task 5) will also be implemented to aid in source identification.

#### *Task 5 - Outfall No. 2 Segment Assessment (contingent)*

Should the results of Task 1 - Outfall No. 2 Water Quality Reassessment, confirm the elevated lead levels, Corning proposes to conduct a further evaluation of each segment of Outfall No. 2 as identified in the Field Mapping (Task 2). This evaluation will involve the collection of water quality samples from the downstream side of each segment of the Outfall 2 drainage system. The samples will be collected prior to mixing with other discharge in the 24-inch main drain line (Figure 2). Samples will be analyzed for total and dissolved cadmium, lead and selenium metals (Series 6000) to evaluate the contribution from the different areas feeding into Outfall No. 2.

#### *Task 6 - Remediation Plan (contingent)*

Subsequent to the collection of field and analytical data for the Outfall No. 2 system and the Monongahela River near the Corning facility, Corning will prepare a remediation plan (if necessary) to address any environmental concerns identified during the conduct of this Action Plan. The remediation plan will include a description of proposed actions for removal of materials, design or construction of water or sediment management structures, or other actions necessary to address any identified environmental concern or pollution prevention measures. As necessary the appropriate PADEP and borough agencies will be notified of the activities in accordance with applicable rules, regulations or guidelines.

Additionally, as necessary the facility Preparedness, Prevention and Contingency Plans will be modified in accordance with Part C, Section 4.c., of the NPDES permit. This information will also be coordinated with the completion of the Stormwater Pollution Prevention Plan, per Part C, Section 6 of the NPDES Permit.

#### Schedule

Corning plans to proceed with Task 1 the week of 20 October, dependent upon presence of flow through the Outfall No. 2 discharge sample point. Task 2 will be conducted before late-October. Tasks 3, 4 and 5 will be conducted subsequent to the receipt of results of Tasks 1 and 2. A schedule for the Remediation Plan or Contingency Plan modifications would be established upon completion of all Tasks conducted.



#### *Task 1 - Outfall No. 2 Water Quality Reassessment*

Corning will proceed with collection of water discharged from Outfall No. 2 as soon as water is observed flowing through the discharge sample location. The sample will be analyzed for total and dissolved cadmium, lead and selenium metals per SW 846 methods as contained in 40 CFR 136 (permit Section 3.a.(4)). The August 1997 sample was collected prior to the removal of accumulated sludge and sediment contained within sumps along the Outfall No. 2 drainage system. Results of this sample event are presented in Table 1. Accumulated sediment and sludge within at least one sump contained elevated levels of lead, resulting in the recommendation that the sumps be cleaned out and for the collection of a water quality sample at the Outfall No. 2 discharge. Corning proceeded with clean-out of the sumps on 20 August 1997 and collection of discharge water on 4 August 1997.

The collection of a sample at this time will allow Corning to provide a comparison of current water quality subsequent to the clean-out activity, to evaluate if the elevated lead in the Outfall water may have been associated with the elevated lead contained in accumulated sediment and sludge in the drainage system. If this sample confirms elevated levels of lead then Tasks 3, 4 and 5 would be implemented to further evaluate each segment of the Outfall No. 2 drainage system to determine the source of lead in the outfall.

#### *Task 2 - Surface Water Quality Assessment along Monongahela River*

Due to elevated lead levels identified at surface water sample location SW-3 (Figure 1), Corning plans to conduct a surface water quality assessment involving samples from 7 locations upstream and downstream of the facility. The objective is to evaluate the quality of surface water on the Monongahela River upstream and downstream of the facility to determine the potential impacts to water quality as a result of facility operations. The information collected will be used to evaluate the potential impact of the site on the Monongahela River. The three surface water samples collected 21 August 1997 were taken from three locations (Figure 1) accessed from the river bank. Table 2 summarizes the analytical results from the August 1997 sample event providing a comparison to the Act 2 guidelines.

The proposed surface water samples will be collected from 7 locations identified in the field to include 2 locations up river, 4 locations adjacent to the facility, and 1 location down river of the lock. Locations will be accessed from the river bank and the use a john boat on the Monongahela River. Samples will be collected from a depth just below the water surface either using a Teflon dipper or the sample container using a long handled sample device. Samples will be analyzed for total and dissolved lead (Series 6000 Furnace). Samples will be submitted to RECRA LabNet in University Park, Illinois for analysis per SW 846 methodology. Quality Assurance/Quality Control samples will consist of field duplicates, trip blank, and laboratory matrix spike and spike duplicate, with a frequency of 1 in 20 or 5%.

The presence of bis(2-ethyl hexyl)phthalate in surface water samples may be attributable to (1) the presence of plastic trash and materials observed on the shoreline at the time of sampling; (2) it is a compound that is a common laboratory contaminant; and (3) the compound is ubiquitous and common in many materials. Additionally, there has been no use of this compound at the Corning Charleroi facility.

#### *Task 3 - Field Mapping/Verification Outfall No. 2 Drainage System (contingent)*

Should the results of Task 1 - Outfall No. 2 Water Quality Reassessment, confirm the elevated lead levels, Corning would conduct a field mapping evaluation to verify drains that feed into the Outfall No. 2 drainage, to better understand the contribution to Outfall No. 2. Existing storm drainage system maps

Corning Incorporated  
Corning, New York 14831  
607-974-9000

October 28, 1997

CORNING

DEF REGION  
SOUTHWEST  
97 OCT 31 PM 1:08

Mr. Mark Johnson  
Pennsylvania Dept. of Environmental Protection  
400 Waterfront Drive  
Pittsburgh, PA. 15222-4745

RE: Corning Consumer Products Company, Charleroi, PA  
Outfall Sampling & Assessment  
Surface Water Quality Assessment

Dear Mr. Johnson:

Enclosed you will find the Action Plan addressing additional assessment and analysis of the Outfall 002 system for the Charleroi Plant. This Action Plan is proposed to address the elevated lead, cadmium, and selenium levels discovered in the August 1997 sample event for Outfall 002 and elevated lead in surface water collected on the Monongahela River. This Action Plan will reflect Corning's proactiveness in evaluating the elevated lead levels identified in the August sample event.

As you are aware, re-sampling occurred during the week of October 20, 1997. The results will be forwarded to you as they become available. If you have any questions, please do not hesitate to call me at (607) (b) (4)

S (b) (4)

(b) (4)

Sr. Environmental Control Engineer

cc: (b) (4)

Corning Incorporated  
Corning, New York 14831  
607-974-9000

October 28, 1997

CORNING

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Sincerely,

(b) (4)

(b) (4)

Sr. Environmental Control Engineer

cc: (b) (4)



Roy F. Weston, Inc.  
1 Weston Way  
West Chester, Pennsylvania 19380-1499  
610-701-3000 • Fax 610-701-3186

DEP  
97 DEC 10 PM 3:47  
8 December 1997  
SOUTHEASTERN REGION

Mr. John Matviya  
Pennsylvania Department of Environmental Protection  
400 Waterfront Drive  
Pittsburgh, PA 15222

W.O. #02005-037-004-0203

Re: Status Report on Outfall #2 Evaluation, Corning Consumer Products Company  
Facility, Charlottesville, Pennsylvania

Dear Mr. Matviya:

The Corning Consumer Products Company (Corning) has implemented Tasks 1 and 2 of the Action Plan for the Assessment of Water Quality in Outfall #2 and the Surface Water of the Monongahela River. These tasks involved sampling of the Outfall #2 effluent and analysis of these samples for total and dissolved cadmium, lead and selenium. Additionally, seven surface water samples were collected upstream and downstream of Outfall #2 to determine if the outfall is impacting surface water quality. The surface water samples were analyzed for total and dissolved lead. Sampling was conducted on 22, 23 and 24 October 1997 using a 14-foot johnboat and a stainless steel discrete depth sampler. Surface water samples were collected approximately 3 feet from the bottom of the river at the locations shown on Figure 1.

The sampling results are summarized in Table 1 and indicate the following:

1. Total and soluble effluent samples from Outfall #2 were collected during base flow conditions (Sample OUTFALL #2) and during a storm event (Sample OUT#2-STORM). The concentration of total lead at the mixing zone where Outfall #2 effluent discharges to the Monongahela River (surface water SW-06) is approximately two orders of magnitude lower than the discrete outfall effluent sample. The lead concentration in this mixing zone sample is near the acute surface water criteria. This is due to mixing of the outfall effluent with Monongahela River surface water in the 24-inch discharge pipe, which was partially submerged at the time of sampling.
2. The comparison of total and soluble results for the samples indicates that sediment in Outfall #2 contains elevated concentrations of lead and cadmium. Suspended sediment is being carried through Outfall #2 by a base flow of approximately 1 to 2 gallons per minute and also during storm events.
3. Surface water samples downstream and upstream of Outfall #2 did not detect soluble or total lead. This indicates that flow from Monongahela River rapidly reduces lead concentrations to non-detectable levels.





Roy F. Weston, Inc.  
1 Weston Way  
West Chester, Pennsylvania 19380-1499  
610-701-3000 • Fax 610-701-3186

DEP  
97 DEC 10 PM 3:17  
SOUTHEASTERN REGION

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Pennsylvania Department of Environmental Protection  
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Pittsburgh, PA 15222

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**Outfall and Surface Water Sampling Results**  
**Corning Consumer Products Company**  
**Charlottesville Plant**

Table 1

Sample ID	Sample Type	Date Collected	Total Lead (µg/L)	Dissolved Lead (µg/L)	Total Cadmium (µg/L)	Dissolved Cadmium (µg/L)	Total Selenium (µg/L)	Dissolved Selenium (µg/L)
OUTFALL002	Stormwater	8/4/97	4800	NA	260	NA	25	NA
OUTFALL#2	Stormwater	10/22/97	883	5.5	47.6	1	9.9	6.3
OUT#2-STORM	Stormwater	10/24/97	1370	55.9	78	16.1	100	91.8
SW-1	Surface Water	10/22/97	2.1	NA	<10	NA	<2	NA
SW-2	Surface Water	10/22/97	<2	NA	<10	NA	<2	NA
SW-3	Surface Water	10/22/97	320	NA	<10	NA	<2	NA
SW-4	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-5	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-6	Surface Water	10/22/97	10.4	<0.80	NA	NA	NA	NA
SW-6 DUP	Surface Water	10/22/97	3.3	<0.80	NA	NA	NA	NA
SW-7	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-8	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-9	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
SW-10	Surface Water	10/23/97	<0.80	<0.80	NA	NA	NA	NA

Note:  
NA = Not Analyzed

Table 1

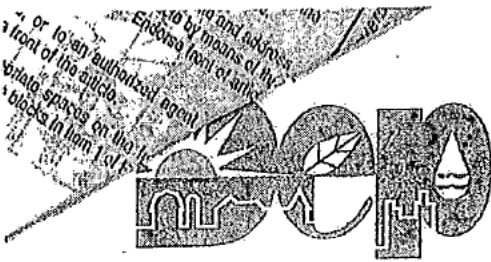
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Corning Consumer Products Company  
Charleroi Plant**

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SW-8	Surface Water	10/22/97	<0.80	<0.80	NA	NA	NA	NA
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SW-10	Surface Water	10/23/97	<0.80	<0.80	NA	NA	NA	NA

Note:

NA = Not Analyzed





Pennsylvania Department of Environmental Protection

400 Waterfront Drive  
Pittsburgh, PA 15222-4745

December 18, 1997

Southwest Regional Office

412-442-4000

**CERTIFIED MAIL #P 573 254 820**

Ms. (b) (4)  
Senior Environmental Control Engineer  
Corning, Inc.  
Corning, NY 14831

RE: Corning Consumer Products Company  
Charleroi Products Company Facility  
Charleroi Borough  
Washington County

Dear (b) (4):

After reviewing the Roy F. Weston, Inc. letter dated October 7, 1997 and subsequent correspondence, the Department has determined that the groundwater beneath the Corning Consumer Products Company's Charleroi facility is not used or currently planned to be used in accordance with Section 250.303(b) of the rules and regulations of the Land Recycling Program (Act 2). Therefore, the statewide health standards for non-use aquifers applies to this site.

Thank you for your continuing cooperation in this matter. If you have any questions concerning this letter please feel free to contact me.

Sincerely,

John J. Matviya  
Regional Manager  
Environmental Cleanup

cc: (b) (4) P.G.

bcc: S Harper  
M. Johnson  
ECP File

JJM:MJ:kld



7. Water service not supplied by the Authority shall not be connected, or cross connected, with the facilities of the Authority, nor shall the consumer connect his private well, spring or cistern with the facilities of the Authority.

8. An APPROVED backflow prevention assembly must be installed on the service line to a consumer's water system. This will be located on the consumer's side of the water meter, as close to the meter as is reasonably practical. On the service line there must be no outlet, tee, tap or connections of any sort to or from the supply pipe line between the meter and the protective assembly. (This will comply with the Authority of the Borough of Charleroi's Water System Rules and Regulations for the cross connections and back flow prevention in accordance with the PA Safe Drinking Water Act.)

9. A one (1) inch air space between private water systems and the Authority's water line is needed and will be inspected before the service connection will be made.

10. The water line from the curb box to the customers meter pit **MUST BE 3/4" K-Copper**. A normal service size of 3/4" will be installed by the Authority. If the customer would like a larger service line, the tap-in fee would reflect an increase in cost.

Once your connection to the new water system is completed, you will be able to use water as you feel meets your needs. Your meter will be read on a quarterly basis and a bill will be submitted to you based on your water consumption. All billings will be based on the Authority's rate structure in effect at the time of the meter reading. A rate schedule can be obtained at the Authority's office.

We trust that the information that we have provided here will be helpful in assisting you to connect to the new water system. However, should you have any questions or require any additional information, please call our office.

# AUTHORITY OF THE BOROUGH OF CHARLEROI

## GENERAL OFFICE

325-327 MCKEAN AVENUE

P. O. BOX 211

CHARLEROI, PENNSYLVANIA 15022-0211

PHONE: 412-483-3585

FAX: 412-483-4827

### THE PROCEDURE TO FOLLOW IN MAKING A NEW "HOOK UP"

1. Each property owner must sign a contract with the Authority of the Borough of Charleroi which states that the Authority will provide them with potable water and that the property owner/water user will abide by the rules and regulations of the Authority. If a tapping fee is required, it should be paid at this time. Signing of the contract should be done at the Authority office at the above address. Specific instructions for the installation of your water service line will be provided to you at that time.
2. If you choose a plumber to make the necessary plumbing changes and curb stop connections, your plumber should contact the Authority of the Borough of Charleroi to obtain a copy of our specifications and to obtain any additional information they feel might be needed if they are not familiar with the Authority's requirements.
3. Have your plumber make the necessary changes including connection of the service line to the new curb stop. This connection should not be covered with dirt at this time. Once the connection has been made and the fittings inside the house are ready for the meter, the plumber should call the Authority of the Borough of Charleroi.
4. Have the Authority's personnel install the meter and inspect the connection to the curb box. When the installation has been approved, the water will be turned on.
5. Complete the installation by back filling the connection and service line only after obtaining approval from the Authority of the Borough of Charleroi. The ditch must be a minimum of three (3) feet deep.
6. Residents that are 100' or more from the main water line will require a meter pit. This meter pit must be purchased from the Authority. When a meter pit is required, the customer may elect to use either K-Copper tubing or copper tube size Polyethylene PVC pipe (PE 3408) when installing a service from the meter pit to their residence. Customers that are less than 100' from the main water line may also purchase a meter pit from the Authority. They may use other types of service lines if they meet the following requirements.
  - a. The meter pit must be purchased from the Authority and installed by the customer, within a distance of 2' from the curb box and no more than 5' from said curb box.
  - b. Thirty (30) day advance notice must be given if customer wants a meter pit. Meter pits must be ordered from our supplier.


SECTION V: DATE OF EFFECT

That the Borough of Charleroi shall certify to the adoption of this Ordinance and cause the same to be published as required by law; and this Ordinance shall take full force and effect upon enactment.

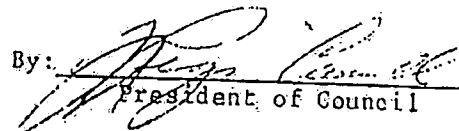
1988. ORDAINED AND ENACTED into Ordinance this 14th day of June,

ATTEST:

BOROUGH OF CHARLEROI

  
Secretary

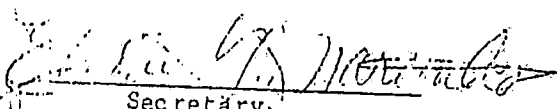
(BOROUGH SEAL)

 By:   
President of Council

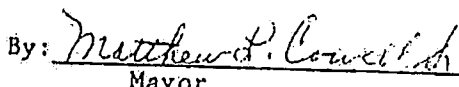
1988. EXAMINED AND APPROVED BY ME, this 14th day of June,

ATTEST:

BOROUGH OF CHARLEROI

  
Secretary

(BOROUGH SEAL)

 By:   
Mayor

5. Section P-118.2 of the said Code is hereby amended to read as follows:

Section P-118.2 Unlawful Continuance: Any person who shall continue any plumbing work in or about the structure after having been served with a stop work order, except such work as that person is directed to perform to remove a violation or unsafe condition, shall be liable to a fine of not less than \$100.00 or more than \$300.00."

6. Section P-303.2 of the said Code is hereby amended to read as follows:

Section P-303.2 Public Systems Available: A public water main or public sewer system shall be considered available to a building when the building is located within 150 feet of the public water main or sewer.

7. Section P-308.3 of the said Code is hereby amended to read as follows:

Section P-308.3 Freezing: Water service piping shall be installed below recorded frost penetration but not less than 3 feet inches below grade. Plumbing, piping or exterior building walls or areas subject to freezing temperatures shall be protected against freezing by installation or heat or both.

8. Section P-308.4 of the said Code is hereby amended to read as follows:

Section P-308.4 Sewer Depth: Building sewers that connect to private sewage disposal systems shall be a minimum of 24 inches below finished grade at the point of septic tank connection. Building sewers shall be a minimum of 24 inches below grade.

#### SECTION IV: SAVING CLAUSE

Nothing in this Ordinance or in the Plumbing Code hereby adopted shall be construed to affect any suit or proceeding impending in any Court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any Act or Ordinance hereby repealed as cited in Section II of this Ordinance; nor shall any just or legal right or remedy of any character be lost, impaired or affected by this Ordinance.

SECTION III: ADDITIONS, INSERTIONS AND CHANGES

That the following sections are hereby revised as follows:

1. Section 1P-100.1 of said Code is hereby amended to read as

follows:

"P-100.1 Title: These regulations shall be known as the Plumbing Code of the Borough of Charleroi hereinafter referred to as (this Code)."

2. Section P-104.1 is hereby amended to read as follows:

P.104.1 Continuation: The legal use and occupancy of any structure existing on \_\_\_\_\_, or for which it has been heretofore approved, shall be continued without change except as shall be specifically covered in this Code.

3. Section P-114.2 of the said Code is hereby amended to read as

follows:

P-114.2 Fee Schedule: The permit fees for all plumbing work shall be as indicated in the following schedule.

FEES FOR PERMITS

<u>Value</u>	<u>Fee</u>
Value of Remodeling or New Construction	
\$1,000.00 or less	\$6.00
\$1,000.00 or more	\$6.00 plus \$3.00 for each additional \$1,000.00 thereof.

All permits become null and void at the expiration of six (6) months after date of issue, unless renewed by the Borough Clerk.

4. Section P-117.4 of the said Code is hereby amended to read as

follows:

Section P-117.4 Penalties: Any person who shall violate a provision of this Code or shall fail to comply with any of the requirements thereof or who shall install plumbing work in violation of an approved plan or a directive of the Code Official, or of a permit or certificate issued under the provisions of this Code, shall be guilty of a summary offense, punishable by a fine of not more than \$300.00 or by imprisonment not exceeding ten (10) days, or both such fine and imprisonment. Each day that a violation continues shall be deemed a separate offense.

BOROUGH OF CHARLEROI  
WASHINGTON COUNTY, PENNSYLVANIA

ORDINANCE NO. 846

AN ORDINANCE ESTABLISHING MINIMUM REGULATIONS GOVERNING THE DESIGN, INSTALLATION AND CONSTRUCTION OF PLUMBING SYSTEMS, BY PROVIDING REASONABLE SAFEGUARDS FOR SANITATION TO PROTECT THE PUBLIC HEALTH AGAINST THE HAZARDS OF INADEQUATE, DEFECTIVE OR INSANITARY PLUMBING INSTALLATIONS; KNOWN AS THE PLUMBING CODE; AND REPEALING ANY CONFLICTING ORDINANCES.

BE IT ORDAINED AND ENACTED and it is hereby ordained and enacted by the Council of the Borough of Charleroi, Washington County, Pennsylvania:

SECTION I: ADOPTION OF PLUMBING CODE

That a certain document, one (1) copy of which is on file in the office of the Council of the Borough of Charleroi, being marked and designated as (the BOCA National Plumbing Code, Seventh Edition, 1987,) as published by the Building Officials and Code Administrators International, Inc. and is hereby adopted as the Plumbing Code of the Borough of Charleroi in the State of Pennsylvania; for the control of buildings and structures as herein provided; and each and all of the regulations, provisions, penalties, condition and terms of the said BOCA National Plumbing Code, are hereby referred to, adopted and made a part hereof as is fully set out in this Ordinance, with the additions, insertions, deletions and changes if any, described in Section III of this Ordinance.

SECTION II: INCONSISTENT ORDINANCE REPEALED

Any and all Ordinances or parts of Ordinances in conflict herewith are hereby repealed.

# **GEOCHECK VERSION 2.1** **STATE DATABASE WELL INFORMATION**

## Well Within 1/2 - 1 Mile of Target Property (Southern Quadrant)

Well ID:	101852	County:	WASHINGTON
County Code:	125	Municipality:	TWILIGHT B
City Code:	63959	Longitude:	(b) (6)
Latitude:	(b) (6), (b) (7)	Well Owner:	(b) (6), (b) (7)
Accuracy-Lat/Long:	Accurate to +1 Minute	Topographic:	Not Reported
Hydrologic Unit:	Not Reported	Well Use:	Water Supply
Aquifer Unit:	Conemaugh Formation	Drill Date:	00-00-00
Water Use:	Domestic	Length/Casing2:	0.00
Well Depth:	(b) (6), (b) (7)	Diameter/Casing2:	Not Reported
Length/Casing1:	20.00	Casing Grouted:	Not Reported
Diameter/Casing1:	6	Lvl Afr Yield Test:	0.00
Type of Finish:	Open Hole	Measuring Method:	3
Static Water Level:	(b) (6), (b) (7)	Yield Test Lngth:	Not Reported
Well Yield (GPM):	(b) (6), (b) (7)	Drill License Num:	1313
Drawdown Reported:	0.00	Order Number:	Not Reported
Bedrock Depth:	017		
Aquifer Lithogy:	SH		
Depth to Water Bearing Zone 1:	(b) (6)		
Depth to Water Bearing Zone 2:	Not reported		
Depth to Water Bearing Zone 3:	Not reported		
Remarks:	1706		

## Well Within 1 - 2 Miles of Target Property (Western Quadrant)

Well ID:	101977	County:	WASHINGTON
County Code:	125	Municipality:	FALLOWFIELD T
City Code:	63933	Longitude:	(b) (6), (b) (7)
Latitude:	(b) (6), (b) (7)	Well Owner:	(b) (6), (b) (7)
Accuracy-Lat/Long:	Accurate to +1 Minute	Topographic:	Stream Channel
Hydrologic Unit:	Not Reported	Well Use:	Water Supply
Aquifer Unit:	Conemaugh Formation	Drill Date:	00-00-66
Water Use:	Domestic	Length/Casing2:	0.00
Well Depth:	(b) (6), (b) (7)	Diameter/Casing2:	Not Reported
Length/Casing1:	20.00	Casing Grouted:	Not Reported
Diameter/Casing1:	7	Lvl Afr Yield Test:	0.00
Type of Finish:	Open Hole	Measuring Method:	Not Reported
Static Water Level:	(b) (6), (b) (7)	Yield Test Lngth:	Not Reported
Well Yield (GPM):	(b) (6), (b) (7)	Drill License Num:	0013
Drawdown Reported:	0.00	Order Number:	Not Reported
Bedrock Depth:	030		
Aquifer Lithogy:	O		
Depth to Water Bearing Zone 1:	(b) (6)		
Depth to Water Bearing Zone 2:	Not reported		
Depth to Water Bearing Zone 3:	Not reported		
Remarks:	1706		



# GEOCHECK VERSION 2.1

## PUBLIC WATER SUPPLY SYSTEM INFORMATION

Searched by Nearest Well.

### PWS SUMMARY:

PWS ID:	PA5630424	PWS Status:	Active	Distance from TP:	1/4 - 1/2 Mile
Date Initiated:	Not Reported	Date Deactivated:	Not Reported	Dir relative to TP:	South
PWS Name:	(b) (6)				
	CHARLEROI, PA 15022				

Addressee / Facility: Mailing  
(b) (6)  
CHARLEROI, PA 15022

Facility Latitude:	(b) (6)	Facility Longitude:	(b) (6)
Facility Latitude:	(b) (9)	Facility Longitude:	(b) (9)
City Served:	Not Reported		
Treatment Class:	Untreated		
	Population Served: 101 - 500 Persons		

Well currently has or has had major violation(s): Yes

### VIOLATIONS INFORMATION:

Violation ID:	9445693	Source ID:	Not Reported	PWS Phone:	Not Reported
Vio. beginning Date:	04/01/94	Vio. end Date:	04/30/94	Vio. Period:	1 Month
Num of required Samples:	Not Reported	Number of Samples Taken:	Not Reported		
Analysis Result:	Not Reported	Maximum Contaminant Level:	Not Reported		
Analysis Method:	Not Reported				
Violation Type:	Monitoring, Routine Major (TCR)				
Contaminant:	COLIFORM (TCR)				
Vio. Awareness Date:	Not Reported				

### ENFORCEMENT INFORMATION:

Enforcement ID	Enforcement Action Date	Enforcement Follow-up Action
8528447	09/13/85	State Formal NOV Issued
8604148	02/28/86	State Public Notif Requested
8614270	08/18/86	State Public Notif Requested
8619189	11/21/86	State Public Notif Requested
8714326	08/04/87	State Public Notif Requested
8904420	07/12/89	State AO (w/o Penalty) Issued
9105141	10/29/91	State Formal NOV Issued
9105142	11/01/91	State Compliance Achieved
9105143	12/27/90	State Formal NOV Issued
9105144	01/12/91	State Compliance Achieved
9105145	12/27/90	State Bill Water Order
9105147	01/22/91	State Compliance Achieved
9105148	01/15/91	State Site Visit (enforcement)
9105149	12/27/90	State Public Notif Requested
9105150	01/22/91	State Public Notif Received
94E0001	04/02/94	State AO (w/o Penalty) Issued

## **Appendix 2**

### **Charleroi Borough Ordinances and Correspondence**

**AUTHORITY OF THE BOROUGH OF CHARLEROI**  
**GENERAL OFFICE**

325-327 MCKEAN AVENUE  
P. O. BOX 211  
CHARLEROI, PENNSYLVANIA 15022-0211  
PHONE: 412-483-3585  
FAX: 412-483-4827

September 25, 1997

Roy F. Weston, Inc.  
Mr. (b)(4) P. G.  
Project Manager  
Geosciences Department  
1 Weston Way  
West Chester, PA 19380-1499

Dear Mr. (b)(4):

The Authority of the Borough of Charleroi is the purveyor of the public water supply for the Borough of Charleroi. Charleroi Borough Ordinance No. 906, adopted in 1996 requires all buildings be supplied with a public water supply when available.

Charleroi Borough Ordinance No. 846 states that a public water supply is to be considered available when the building is within 150 feet of the public water supply.

A public water supply is available in the area in question.

Sincerely,



Robert E. Butz  
General Manager

REB:jak

BOROUGH OF CHARLEROI  
WASHINGTON COUNTY, PENNSYLVANIA  
ORDINANCE NO. 906

AN ORDINANCE OF THE BOROUGH OF CHARLEROI, WASHINGTON COUNTY, PENNSYLVANIA, ESTABLISHING MINIMUM REGULATIONS GOVERNING THE DESIGN, CONSTRUCTION, ALTERATION, ENLARGEMENT, REPAIR, DEMOLITION, REMOVAL, MAINTENANCE AND USE OF ALL BUILDINGS AND STRUCTURES; PROVIDING FOR THE ISSUANCE OF PERMITS, COLLECTION OF FEES, MAKING OF INSPECTIONS; PROVIDING PENALTIES FOR THE VIOLATION THEREOF; KNOWN AS THE BUILDING CODE AND REPEALING ANY EXISTING ORDINANCE OR PART OF ANY ORDINANCE IN CONFLICT HEREWITH.

BE IT ENACTED AND ORDAINED by the Council of the Borough of Charleroi, Washington County, Pennsylvania as follows:

**SECTION 1. ADOPTION OF BUILDING CODE.**

That a certain document, being marked and designated as "The BOCA National Building Code, Thirteenth Edition, 1996" as published by the Building Officials and Code Administrators International, Inc., be and is hereby adopted as the Building Code of the Borough of Charleroi, Washington County, Pennsylvania; for the control of buildings and structures as herein provided; and each and all of the regulations, provisions, penalties and conditions and terms of said BOCA Building Code, are hereby referred to, adopted and made part hereof as if fully set out in this Ordinance, with the additions, insertions, deletions and changes, if any, prescribed in Section 3 of this Ordinance.

**SECTION 2. INCONSISTENT ORDINANCES REPEALED**

That Ordinance Number 847 and all other Ordinances and parts of any Ordinances which conflict with this Ordinance are hereby repealed.

**SECTION 3. ADDITIONS, INSERTIONS AND CHANGES.**

That the following sections are hereby revised as follows:

Section 101.1. Insert: Charleroi Borough, Washington County, Pennsylvania.

Section 112.3.1. Insert: Six (\$6.00) Dollars for the first One Thousand (\$1,000.00) Dollars and Three (\$3.00) Dollars for each additional One Thousand (\$1,000.00) Dollars. (Permits are null and void after six months).

Section 116.4. Insert: Summary Offense, \$500.00, 30 days.

Section 117.2. Insert: No less than One Hundred (\$100.00) Dollars and no more than Three Thousand (\$3,000.00) Dollars.

Section 3408.2. Insert:



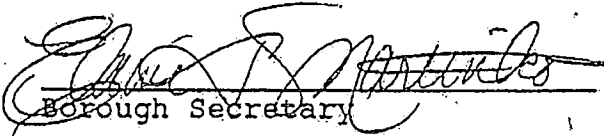
SECTION 4. SAVING CLAUSE.

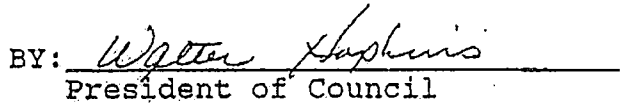
That nothing in this Ordinance or in the Building Code hereby adopted shall be construed to affect any lawsuit or proceeding impending in any court, or any rights acquired, or liability incurred, or any cause or causes of action acquired or existing, under any act or ordinance hereby repealed as cited in Section 2 of this Ordinance; nor shall any just or legal right or remedy of any character be lost, impaired or affected by this Ordinance.

ORDAINED AND ENACTED this 9th day of May, 1996.

ATTEST:

BOROUGH OF CHARLEROI

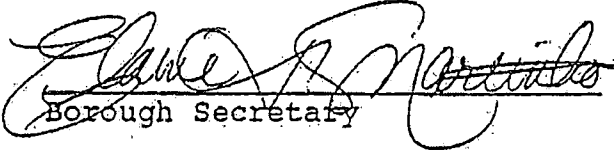
  
Borough Secretary

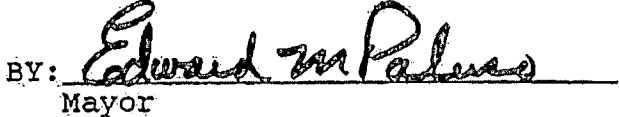
BY:   
President of Council

EXAMINED AND APPROVED this 9th day of May, 1996.

ATTEST:

BOROUGH OF CHARLEROI

  
Borough Secretary

BY:   
Mayor

**2904.6 Owner performance:** The provisions contained herein shall not prohibit the *owner* of a building or structure from installing the plumbing system in said *owner's* place of residence under the conditions specified in Sections 2904.6.1 through 2904.6.5.

**2904.6.1 Approval of construction documents:** Approval of *construction documents* and final approval shall be obtained.

**2904.6.2 Permit:** A permit shall be secured as provided for herein before the work is performed.

**2904.6.3 Legal fees:** All legal fees shall be paid to the jurisdiction.

**2904.6.4 Work:** All work shall actually be performed by the *owner* in accordance with the provisions of this code.

**2904.6.5 Tests:** The *owner* shall make arrangements for all required inspections and tests.

#### SECTION 2905.0 WATER SUPPLY SYSTEMS

**2905.1 General:** Every building in which people live, work or congregate shall be provided with a supply of clean and potable water in sufficient quantity to maintain all water supply and plumbing fixtures in a safe and sanitary manner; and such other water supplies as are required for fire protection, air conditioning and all other service equipment of the building or structure required by this code.

**2905.2 Required capacity:** Where the required capacity of potable water supply is available from public water mains at the site, every building or structure shall be supplied from such mains to provide for all service equipment.

**2905.3 Private water supply:** Where public water mains are not available and a private source of water supply is provided, samples shall be submitted periodically to the health official for analysis and approval and the use of such source of supply shall be approved by the health official and the code official.

**2905.4 Cross-connected supplies:** Cross-connected water supplies shall be permitted in accordance with Sections 2905.4.1 and 2905.4.2.

**2905.4.1 Building service supply:** It shall be unlawful to connect water piping supplied directly from city water mains or other approved sources with or to piping from underground storage tanks or other unapproved sources. Cross connection shall not be made between the potable water distribution system and any portion of waste or soil systems, or fixtures or devices that will contaminate, pollute or otherwise render the water unsafe.

**2905.4.2 Connections to automatic fire sprinkler systems and standpipe systems:** The potable *water supply* to *automatic fire sprinkler* and *standpipe systems* shall be protected against backflow by a double check-valve assembly or a reduced pressure principle backflow preventer.

**Exception:** Where systems are installed as a portion of the water distribution system in accordance with the requirements of the plumbing code listed in Chapter 35, and are not provided with a fire department connection, isolation of the *water supply* system shall not be required.

**2905.4.2.1 Additives or nonpotable source:** Where systems contain chemical additives, antifreeze or are connected to a nonpotable secondary *water supply*, the potable *water supply* shall be protected against backflow by a reduced pressure principle backflow preventer. Where chemical additives or antifreeze are added to only a portion of an *automatic fire sprinkler* or *standpipe system*, the reduced pressure principle backflow preventer shall be permitted to be located so as to isolate that portion of the system.

**2905.5 Process water:** Water from unapproved sources for industrial processing or for fire protection shall be identified at each outlet with an approved *sign* stating that the water is unfit and prohibited for drinking purposes. Piping carrying potable water shall be identified and distinguished from water piping from unapproved sources by distinctive painting and appropriate *signs*.

#### SECTION 2906.0 PRIVATE SEWAGE DISPOSAL

**2906.1 General:** Private sewage disposal systems shall conform to the private sewage disposal code listed in Chapter 35.

#### SECTION 2907.0 PLUMBING FIXTURE SURROUNDS

**2907.1 Toilet room surfaces:** The floors, walls, ceilings, partitions and doors of all toilet rooms used by the public or employees shall be of a finish that is capable of being easily cleaned. Cove bases shall be provided to facilitate cleaning. The floor and sidewalls, including the angle formed by the floor and sidewalls, and excluding doorways and entrances, shall be water tight to a *height* of at least 5 inches (127 mm) above the floor.

**2907.2 Surrounding material for urinals:** Wall and floor space to a point of 2 feet (610 mm) in front of a urinal lip and 4 feet (1219 mm) above the floor, and at least 2 feet (610 mm) to each side of the urinal, shall be finished with a smooth, waterproof, nonabsorbent, readily cleanable material.

**2907.3 Surrounding material for water closets:** Floors within 1 foot (305 mm) in any direction from the rim of a water closet shall be finished with a smooth, waterproof, nonabsorbent, readily cleanable material.

**2907.4 Showers:** The wall area above built-in tubs that have installed shower heads and in shower compartments shall be constructed of smooth, noncorrosive, nonabsorbent and waterproof materials to a *height* of not less than 6 feet (1829 mm) above the room floor level. Such walls shall form a water-tight *joint* with each other and with the tub, receptor or shower floor.

**2907.4.1 Shower floors or receptors:** Floor surfaces shall be constructed of smooth, noncorrosive, nonabsorbent and waterproof materials.

#### SECTION 2908.0 EXISTING BUILDINGS AND INSTALLATIONS

**2908.1 Compliance with code:** Where *alterations* are made in an existing building or structure requiring the *addition* of any two or more plumbing fixtures, or one or more water closets, or where a new bathroom is installed, or a building is remodeled for an extension in size or *change of occupancy* in which plumbing work is involved, the new work shall be made to conform to the plumbing code listed in Chapter 35.

# GEOCHECK VERSION 2.1 STATE DATABASE WELL INFORMATION

## Water Well Information:

### Well Within >2 Miles of Target Property (Northern Quadrant)

Well ID:	101201	County:	WASHINGTON
County Code:	125	Municipality:	GARROLL T
City Code:	63919	Longitude:	(b) (6), (b) (9)
Latitude:	(b) (6), (b) (9)	Well Owner:	
Accuracy-Lat/Long:	Accurate to +1 Minute	Topographic:	Hillside
Hydrologic Unit:	05020005	Well Use:	Water Supply
Aquifer Unit:	Waynesburg Formation	Drill Date:	6-14-85
Water Use:	Domestic	Length/Casing2:	Not Reported
Well Depth:	(b) (6), (b) (9)	Diameter/Casing2:	Not Reported
Length/Casing1:	21.00	Casing Grouted:	Y
Diameter/Casing1:	6	Lvl Afr Yield Test:	(b) (6), (b) (9)
Type of Finish:	Open Hole	Measuring Method:	Estimated
Static Water Level:	(b) (6), (b) (9)	Yield Test Lngth:	1
Well Yield (GPM):		Drillr License Num:	55
Drawdown Reported:	90.00	Order Number:	Not Reported
Bedrock Depth:	14		
Aquifer Lithogy:	SS		
Depth to Water Bearing Zone 1:	(b) (6), (b) (9)		
Depth to Water Bearing Zone 2:	Not reported		
Depth to Water Bearing Zone 3:	Not reported		
Remarks:	CAS.MAT=PLST;14FT=CLAY;50FT=LIMESTONE;140=SS149=COAL		

### Well Within >2 Miles of Target Property (Eastern Quadrant)

Well ID:	40054	County:	FAYETTE
County Code:	051	Municipality:	BELLE VERNON B
City Code:	26906	Longitude:	(b) (9)
Latitude:	(b) (9)	Well Owner:	EXXON
Accuracy-Lat/Long:	Accurate to +1 Minute	Topographic:	Flat
Hydrologic Unit:	05020005	Well Use:	Test
Aquifer Unit:	Carmichaels Formation	Drill Date:	9-85
Water Use:	Industrial	Length/Casing2:	Not Reported
Well Depth:	(b) (9)	Diameter/Casing2:	Not Reported
Length/Casing1:	1.00	Casing Grouted:	Not Reported
Diameter/Casing1:	4	Lvl Afr Yield Test:	Not Reported
Type of Finish:	Not Reported	Measuring Method:	Not Reported
Static Water Level:	Not Reported	Yield Test Lngth:	Not Reported
Well Yield (GPM):	Not Reported	Drillr License Num:	1696
Drawdown Reported:	Not Reported	Order Number:	Not Reported
Bedrock Depth:	Not Reported		
Aquifer Lithogy:	Not Reported		
Depth to Water Bearing Zone 1:	Not reported		
Depth to Water Bearing Zone 2:	Not reported		
Depth to Water Bearing Zone 3:	Not reported		
Remarks:	CAS.MAT=PLST;1FT=ASPHT;11FT=BRNSILTCL;18=BRNSILTYCLAY		



# GEOCHECK VERSION 2.1 FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (Western Quadrant)

## BASIC WELL DATA

Site ID: 400733079561301  
Site Type: Spring  
Year Constructed: Not Reported  
Altitude: 1170.00 ft.  
Well Depth: Not Reported  
Depth to Water Table: Not Reported  
Date Measured: Not Reported

Distance from TP: >2 Miles

County: Washington  
State: Pennsylvania  
Topographic Setting: Hillside (slope)  
Prim. Use of Site: Not Reported  
Prim. Use of Water: Not Reported

## LITHOLOGIC DATA

Geologic Age ID (Era/System/Series): Pennsylvanian-Upper  
Principal Lithology of Unit: Not Reported  
Further Description: Not Reported

## WATER LEVEL VARIABILITY

Not Reported

**GEOCHECK VERSION 2.1**  
**FEDERAL DATABASE WELL INFORMATION**

Well Closest to Target Property (Southern Quadrant)

**BASIC WELL DATA**

Site ID:	400715079523001	Distance from TP:	>2 Miles
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	Not Reported	County:	Washington
Altitude:	975.00 ft.	State:	Pennsylvania
Well Depth:	175.00 ft.	Topographic Setting:	Hillside (slope)
Depth to Water Table:	140.00 ft.	Prim. Use of Site:	Withdrawal of water
Date Measured:	Not Reported	Prim. Use of Water:	Stock

**LITHOLOGIC DATA**

Geologic Age ID (Era/System/Series):	Pennsylvanian-Upper
Principal Lithology of Unit:	Not Reported
Further Description:	Not Reported

**WATER LEVEL VARIABILITY**

Not Reported

**GEOCHECK VERSION 2.1**  
**FEDERAL DATABASE WELL INFORMATION**

Well Closest to Target Property (Eastern Quadrant)

**BASIC WELL DATA**

Site ID:	400831079534901	Distance from TP:	1/8 - 1/4 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1944	County:	Washington
Altitude:	750.00 ft.	State:	Pennsylvania
Well Depth:	63.00 ft.	Topographic Setting:	Valley flat
Depth to Water Table:	14.00 ft.	Prim. Use of Site:	Unused
Date Measured:	03011944	Prim. Use of Water:	Unused

**LITHOLOGIC DATA**

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Holocene
Principal Lithology of Unit:	Sand
Further Description:	Not Reported

**WATER LEVEL VARIABILITY**

Not Reported

## GEOCHECK VERSION 2.1 ADDENDUM FEDERAL DATABASE WELL INFORMATION

Well Closest to Target Property (Northern Quadrant)

### BASIC WELL DATA

Site ID:	400836079535701	Distance from TP:	1/8 - 1/4 Mile
Site Type:	Single well, other than collector or Ranney type		
Year Constructed:	1925	County:	Washington
Altitude:	765.00 ft.	State:	Pennsylvania
Well Depth:	Not Reported	Topographic Setting:	Not Reported
Depth to Water Table:	Not Reported	Prim. Use of Site:	Withdrawal of water
Date Measured:	Not Reported	Prim. Use of Water:	Industrial

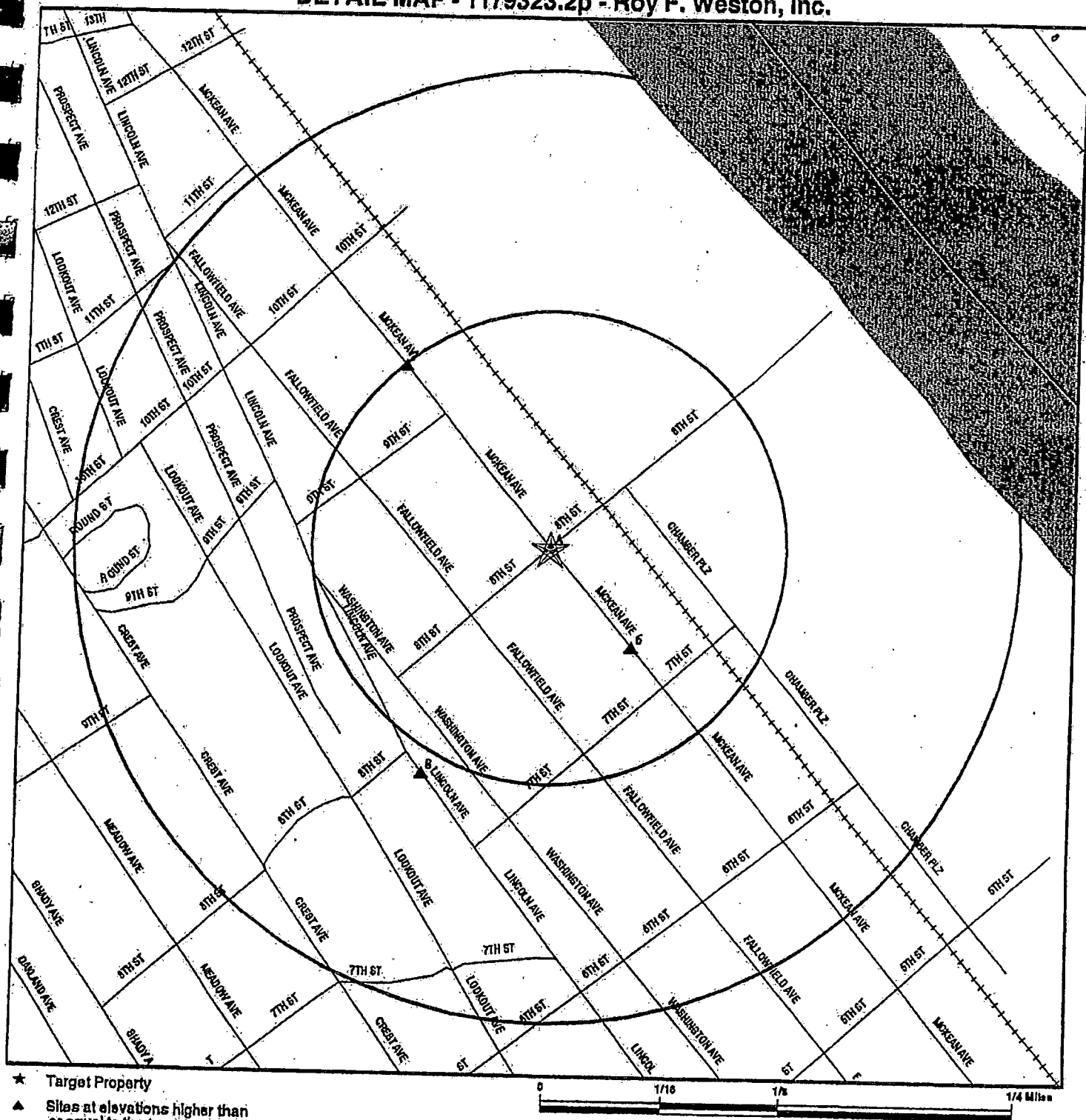
### LITHOLOGIC DATA

Geologic Age ID (Era/System/Series):	Cenozoic-Quaternary-Holocene
Principal Lithology of Unit:	Sand
Further Description:	Not Reported

### WATER LEVEL VARIABILITY

Not Reported

# DETAIL MAP - 1179323.2p - Roy F. Weston, Inc.



- ★ Target Property
- ▲ Sites at elevations higher than or equal to the target property
- ◆ Sites at elevations lower than the target property
- ▲ Coal Gasification Sites (if requested)
- Sensitive Receptors
- National Priority List Sites
- Landfill Sites

~ Power transmission lines  
 ~ Oil & Gas pipelines

**TARGET PROPERTY:**  
**ADDRESS:** Corning Consumer Products Co.  
**CITY/STATE/ZIP:** 100 8th Street  
 Charleroi PA 15022  
**LAT/LONG:** 40.1415 / 79.9011

**CUSTOMER:** Roy F. Weston, Inc.  
**CONTACT:** Karen Hollway  
**INQUIRY #:** 1179323.2p  
**DATE:**

(b) (9)

(b) (9)



- Major Roads
- Contour Lines
- Waterways
- Earthquake epicenter, Richter 5 or greater
- Closest Federal Well in quadrant
- Closest State Well in quadrant
- Closest Public Water Supply Well

TARGET PROPERTY: Corning Consumer Products Co.  
ADDRESS: 100 8th Street  
CITY/STATE/ZIP: Charleroi PA 15022  
LAT/LONG: 40.1415 / 79.9011

CUSTOMER: Roy F. Weston, Inc.  
CONTACT: (b) (4)  
INQUIRY #: 1179323.2p  
DATE: June 09, 1997 8:50 am



## **The EDR-Radius Map with GeoCheck™**

**Corning Consumer Products Co.  
100 8th Street  
Charleroi, PA 15022**

**Inquiry Number: 1179323.2p**

**June 09, 1997**

## **The Source For Environmental Risk Management Data**

**3530 Post Road  
Southport, Connecticut 06490**

**Nationwide Customer Service**

**Telephone: 1-800-352-0050  
Fax: 1-800-231-6802  
Internet: [www.edrnet.com](http://www.edrnet.com)**

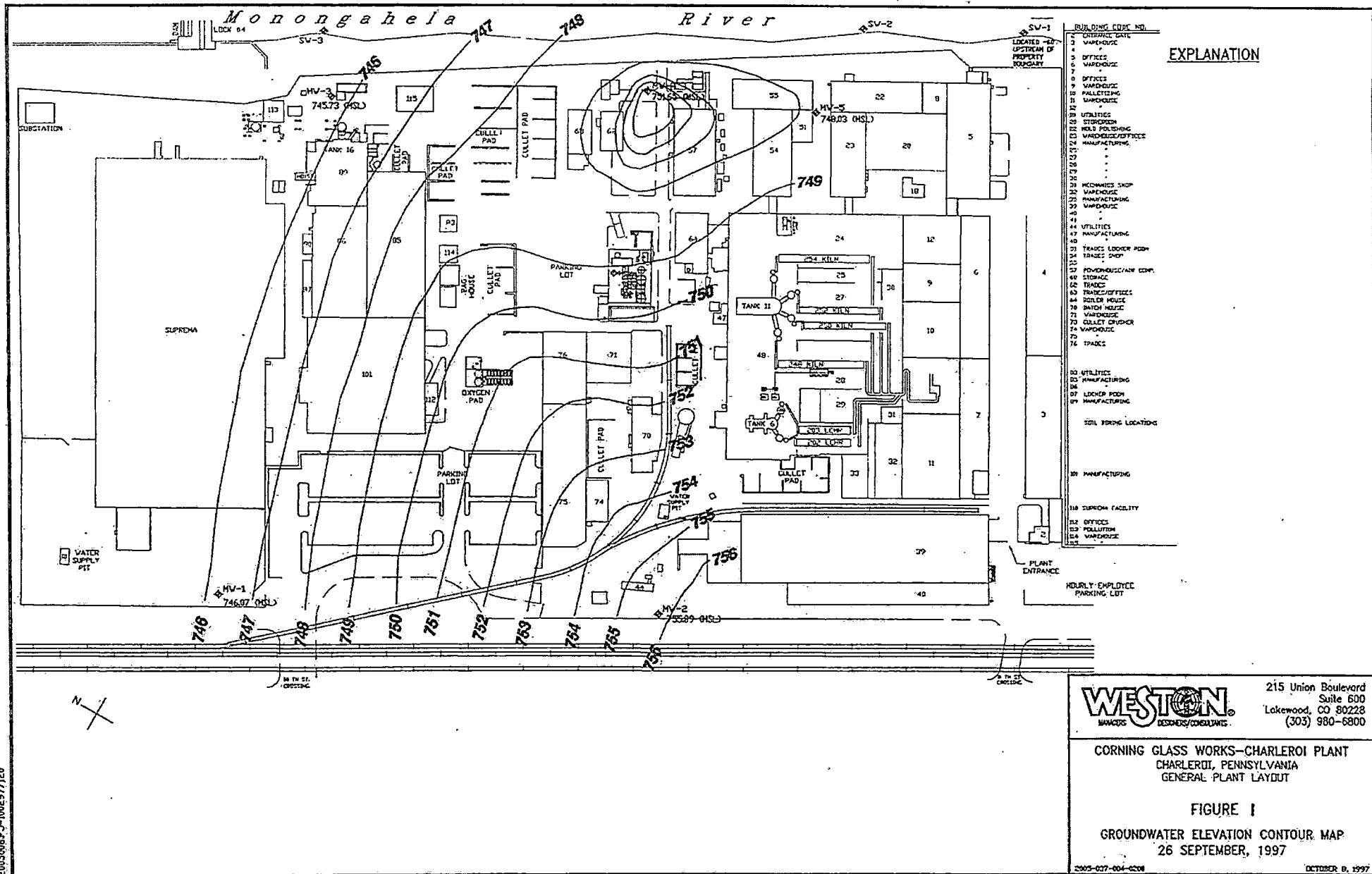
**Summary of Water Level Elevations  
Measured on 26 September 1997**

Monitor Well	Reference Elevation (TOIC) (FMSL)	Depth to Water (ft.) (9/26/97) (TOIC)	Water Table Elevation (FMSL)
MW-1	762.95	16.88	746.07
MW-2	761.75	5.86	755.89
MW-3	761.65	15.92	745.73
MW-4	761.16	9.51	751.65
MW-5	760.76	12.73	748.03



## **Appendix 1**

### **Site Survey Data, Field Measurements and Well Search Database Results**





Mr. John Matviya  
Pennsylvania Department of Environmental Protection

-3-

26 September 1997

Based on these ordinances and the 1996 BOCA Code, the Borough confirmed, in a letter dated 25 September 1997, that all residences that are within 150 feet of a main water line are required to be supplied by the public water mains (Ordinance 846). The Borough also confirmed that all of the buildings within 1/2 mile of the facility are less than 150 feet from a public water main and therefore are required to be connected to the Charleroi public water system. This information is useful in establishing that the businesses and other buildings adjacent (cross-gradient) to the facility are connected to the Charleroi public water supply system. According to Mr. Butz the public water system has been in operation since approximately 1912. Copies of the ordinances, pertinent sections of the BOCA Code and correspondence from the Borough of Charleroi are included in Appendix 2.

We believe that the information presented herein satisfies the requirements of the Section 250.303 of the final Act 2 regulations for the demonstration of a non-use aquifer.

We appreciate your timely evaluation of this study and look forward to working with you on the completion of this project. If you have any questions please contact Mr. (b) (4) (b) (4) WESTON Project Manager at (610) (b) (4) or Ms. (b) (4), Corning Senior Environmental Control Engineer at (607) (b) (4).

Very truly yours,

ROY F. WESTON, INC.

(b) (4)

(b) (4), P.G.  
Project Manager  
Geosciences Department

cc: (b) (4) (Corning)  
(b) (4) (Corning)  
(b) (4) (WESTON)  
(b) (4) (WESTON)



Mr. John Matviya  
Pennsylvania Department of Environmental Protection

-2-

7 October 1997

which are no longer in use. Neither of these wells could be located at the site and all historical records indicated that the plant water supply came from the Monongahela River through a water intake with a pump in the river and an "intake well" adjacent to the river (based on a 1921 facility drawing). The only wells observed during the site reconnaissance and field effort were two registered natural gas wells that are currently capped and out of service. If the water wells listed in the Federal database existed, they apparently have been abandoned and covered. Copies of the pertinent information from the EDR Database Report are included in Appendix 1.

The location of the public water supply well listed in the EDR report is incorrect based on a conversation with the owner of the well (Mr. (b) (6), (b) (6)). According to Mr. (b) (6) the well is actually located approximately 6 miles west of the facility near the town of Bentleyville. Mr. (b) (6) can be reached at the (b) (6) at (412) (b) (6). The nearest public water intake from the Monongahela River is Charleroi's public water supply intake, located approximately 4,000 feet up river (personal communication, Mr. (b) (6), 23 July 1997). Mr. (b) (6) also indicated that the nearest intake downstream of the site is the El Rama water facility approximately 5 miles downriver. WESTON also contacted the Pennsylvania Department of Environmental Protection (PADEP) Field Sanitation Officer for the site area, Mr. Clark Harris on 20 August 1997. Mr. Harris stated that there are no public water supply wells within a one mile radius of the Corning Charleroi facility.

The PADEP was contacted concerning the locations of Zone 2 Wellhead Protection Areas in the vicinity of the Corning Charleroi facility. Mr. David Bomba of the PADEP Ebensburg office stated that there are no Zone 2 Wellhead Protection Areas designated within Washington County.

WESTON met with Mr. Jamie Stache (Charleroi Code Enforcement Officer) and Messrs. Frank P. Frascatore and Robert E. Butz of the Authority of the Borough of Charleroi concerning the public water system and the potential for the existence of private wells in the Borough. Mr. Stache provided copies of the following ordinances pertaining to water use and supply in Charleroi Borough:

1. Ordinance No. 906 - Establishes minimum regulations governing the design, construction, and use of all buildings and structures in the Borough of Charleroi. Adopts The BOCA National Building Code, 13th Edition, 1996 as the building code for the Borough of Charleroi.
2. Ordinance No. 846 - Establishes minimum regulations governing the design, installation and construction of plumbing systems in the Borough of Charleroi.



Roy F. Weston, Inc.  
1 Weston Way  
West Chester, Pennsylvania 19380-1499  
610-701-3000 • Fax 610-701-3186

7 October 1997

Mr. John Matviya  
Pennsylvania Department of Environmental Protection  
400 Waterfront Drive  
Pittsburgh, PA 15222

RE: Request for Aquifer Use Determination of Corning Consumer  
Products Company Facility, Charleroi, Washington County, Pennsylvania

DEP  
97 OCT 14 AM 7:39  
SOUTHWESTERN REGION

Dear Mr. Matviya:

The Corning Consumer Products Company (Corning) is continuing to evaluate the Charleroi facility under the Pennsylvania Land Recycling Program established by Act 2 and the associated regulations. As discussed in the correspondence to you dated 31 July 1997 from Roy F. Weston, Inc. (WESTON) Corning plans to pursue the classification of the groundwater at the site as a non-use aquifer as per Section 250.303 of the final regulations for Act 2.

This letter constitutes a formal request for a determination of aquifer status. The required evidence to demonstrate aquifer use in the Corning Charleroi facility area is included in this request.

In order to determine groundwater flow direction at the site, five monitoring wells were installed to monitor groundwater in the unconsolidated material at the site. These monitoring wells were surveyed for location and elevation and a groundwater elevation flow map was prepared. This groundwater elevation map is shown on Figure 1 and shows that groundwater is flowing to the northeast, toward the Monongahela River. The survey data and water levels measured in the field are included in Appendix 1.

The data indicate that the furthest downgradient area that site related contaminants could reasonably be expected to migrate to is the river. The Monongahela River is greater than 1000 feet wide in the area adjacent to the facility. Therefore, there is no potential for current or future groundwater use in the area "within a radius of 1000 feet downgradient of the site points of compliance" (Section 250.303 b; c1; c2).

Section 250.303 c3 requires a demonstration that the area "within a radius of 1000 feet downgradient of the site points of compliance does not intersect a radius of 1/2 mile from a community water supply well source or does not intersect an area designated by PADEP as a Zone 2 Wellhead Protection Area". An environmental database report (EDR, 9 June 1997) indicates that two private supply wells and one public water supply well are present within a 1/2-mile radius of the Corning Charleroi facility. The two private supply wells appear to be old industrial water wells (1925 and 1944) located on the Corning property



Form Approved OMB No. 158-S80004

<b>FORM</b>	<b>EPA</b>	<b>U.S. ENVIRONMENTAL PROTECTION AGENCY</b>	<b>I. EPA I.D. NUMBER</b>
<b>3</b>		<b>HAZARDOUS WASTE PERMIT APPLICATION</b>	
<b>RCRA</b>		<b>Consolidated Permits Program</b>	
		(This information is required under Section 3005 of RCRA.)	F P A D 0 0 4 3 2 6 5 4 2 T/A C

APPLICATION APPROVED		DATE RECEIVED (yr., mo., & day)			
23		24	5	25	

Place an "X" in the appropriate box in A or B below (*mark one box only*) to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

☒ 1. EXISTING FACILITY (See instructions for definition of "existing" facility.  
Complete item below.)

C	YR.	MO.	DAY
8	36		

FOR EXISTING FACILITIES, PROVIDE THE DATE (yr., mo., & day)  
OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED  
(use the boxes to the left).

YR.		MO.		DAY	

FOR NEW FACILITIES,  
PROVIDE THE DATE  
(yr., mo., & day) OPERA-  
TION BEGAN OR IS  
EXPECTED TO BEGIN

☐ 1. FACILITY HAS INTERIM STATUS

**A. PROCESS CODE** -- Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes; if more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process (including its design capacity) in the space provided on the form (Item III-C).

1. AMOUNT — Enter the amount.

2. **UNIT OF MEASURE** — For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY	PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
<u>Storage:</u>			<u>Treatment:</u>		
CONTAINER (barrel, drum, etc.)	S01	GALLONS OR LITERS	TANK	T01	GALLONS PER DAY OR LITERS PER DAY
TANK	S02	GALLONS OR LITERS			
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS	SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS	INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR
<u>Disposal:</u>					
INJECTION WELL	D79	GALLONS OR LITERS			
LANDFILL	D80	ACRE-Feet (the volume that would cover one acre to a depth of one foot) OR HECTARE-METER	OTHER (Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)	T04	GALLONS PER DAY OR LITERS PER DAY
LAND APPLICATION	D81	ACRES OR HECTARES			
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY			
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS			
	UNIT OF MEASURE CODE			UNIT OF MEASURE CODE	
UNIT OF MEASURE		UNIT OF MEASURE		UNIT OF MEASURE	
GALLONS . . . . .	G	LITERS PER DAY . . . . .	V	ACRE-Feet . . . . .	A
LITERS . . . . .	L	TONS PER HOUR . . . . .	D	HECTARE-METER . . . . .	F
CUBIC YARDS . . . . .	Y	METRIC TONS PER HOUR . . . . .	W	ACRES . . . . .	B
CUBIC METERS . . . . .	C	GALLONS PER HOUR . . . . .	E	HECTARES . . . . .	Q
GALLONS PER DAY . . . . .	U	LITERS PER HOUR . . . . .	H		

**EXAMPLE FOR COMPLETING ITEM III** (shown in line numbers X-1 and X-2 below): A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

B. PROCESS DESIGN CAPACITY										B. PROCESS DESIGN CAPACITY									
LINE NUMBER	A. PROCESS CODE (from 1st above)	1. AMOUNT (specify)		2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY	LINE NUMBER	A. PROCESS CODE (from 1st above)	1. AMOUNT		2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY								
		16	17					18	19			20	21	22	23				
X-1	S 0 2	600		G		5	T 0 4	28,800		U									
X-2	T 0 3	20		E		6	S 0 2	5,500		G									
1	S 0 1	120		Y		7	S 0 1	110		G									
2	S 0 2	8,000		G		8													
3	T 0 1	6,600		U		9													
4	S 0 2	400		G		10													

Continued from the front.

### III. PROCESSES (continued)

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES (code "T04"). FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

See III - 3 (Line 5) T04: Filter press unit to remove heavy metal solids from wastewater in paint mix area.

### IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER — Enter the four-digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four-digit number(s) from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY — For each listed waste entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each characteristic or toxic contaminant entered in column A estimate the total annual quantity of all the non-listed waste(s) that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE — For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE CODE  
POUNDS.....P  
TONS.....T

METRIC UNIT OF MEASURE CODE  
KILOGRAMS.....K  
METRIC TONS.....M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

#### D. PROCESSES

##### 1. PROCESS CODES:

For listed hazardous waste: For each listed hazardous waste entered in column A select the code(s) from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.

For non-listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code(s) from the list of process codes contained in Item III to indicate all the processes that will be used to store, treat, and/or dispose of all the non-listed hazardous wastes that possess that characteristic or toxic contaminant.

Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code(s).

2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER — Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B, C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "Included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV (shown in line numbers X-1, X-2, X-3, and X-4 below) — A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non-listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARDOUS WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES	
				1. PROCESS CODES (enter)	2. PROCESS DESCRIPTION (if a code is not entered in D(1))
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above



Continued from page 2.

NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

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EPA I.D. NUMBER (enter from page 1)												FOR OFFICIAL USE ONLY												
W P A D O 0 4 3 2 6 5 4 2 1												W DUP 2 DUP												
IV. DESCRIPTION OF HAZARDOUS WASTES (continued)																								
LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)				B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	1. PROCESS CODES (enter)								2. PROCESS DESCRIPTION (If a code is not entered in D(1))									
	27	28	29	30			31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
1	0	0	0	4	100	T	S	0	1															See Comment 1 (Sect. IV-E)
2	D	0	0	5																				Included with above
3	D	0	0	0	200	T	S	0	1															See Comment 2 (Sect. IV-E)
4	D	0	0	6			S	0	1															Included with above
5	D	0	0	8			S	0	1															Included with above
6	F	0	1	7			S	0	1															Included with above
7	D	0	0	0			T	0	4															Included with above
8	U	0	1	3	100	P																		Small quantity belting, tubing disposed as generated.
9					100	T	S	0	2															Waste Oils
10	F	0	0	1	700	P	S	0	1															
11	P	0	1	0	100	P	S	0	2															
12	D	0	0	7	5	P	T	0	1															
13																								
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24																								
25																								
26																								



**IV. DESCRIPTION OF HAZARDOUS WASTES (continued)****E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.****Comments from Section IV.**

Comment 1 (IV, Line 2): This material consists of particulates collected from a glass tank Electrostatic Precipitator, and spilled or off-composition glass batch material, containing less than 1% Arsenic and less than 6% Barium.

Comment 2 (IV, Line 4): This material consists of particulate dust collected from paint spraybooth Baghouses and Electrostatic Precipitators and the filter cake solids from the water treatment filter press in the paint mix area. Both materials contain up to 7% cadmium and 50% lead.

EPA I.D. NO. (enter from page 1)

F	P	A	D	O	0	4	3	2	6	5	4	2	6
---	---	---	---	---	---	---	---	---	---	---	---	---	---

**V. FACILITY DRAWING**

All existing facilities must include in the space provided on page 5 a scale drawing of the facility (see instructions for more detail).

**VI. PHOTOGRAPHS**

All existing facilities must include photographs (aerial or ground-level) that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas (see instructions for more detail).

**VII. FACILITY GEOGRAPHIC LOCATION**

LATITUDE (degrees, minutes, &amp; seconds)

LONGITUDE (degrees, minutes, &amp; seconds)

4	0	0	8	4	2	N
---	---	---	---	---	---	---

0	7	9	5	3	4	0	N
---	---	---	---	---	---	---	---

**VIII. FACILITY OWNER**

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER

2. PHONE NO. (area code &amp; no.)

3. STREET OR P.O. BOX

4. CITY OR TOWN

5. ST.

6. ZIP CODE

**IX. OWNER CERTIFICATION**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

B. SIGNATURE

C. DATE SIGNED

C.R. STENSKI, SR. Vice President

C.R. Stenski

11-17-80

**X. OPERATOR CERTIFICATION**

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)

B. SIGNATURE

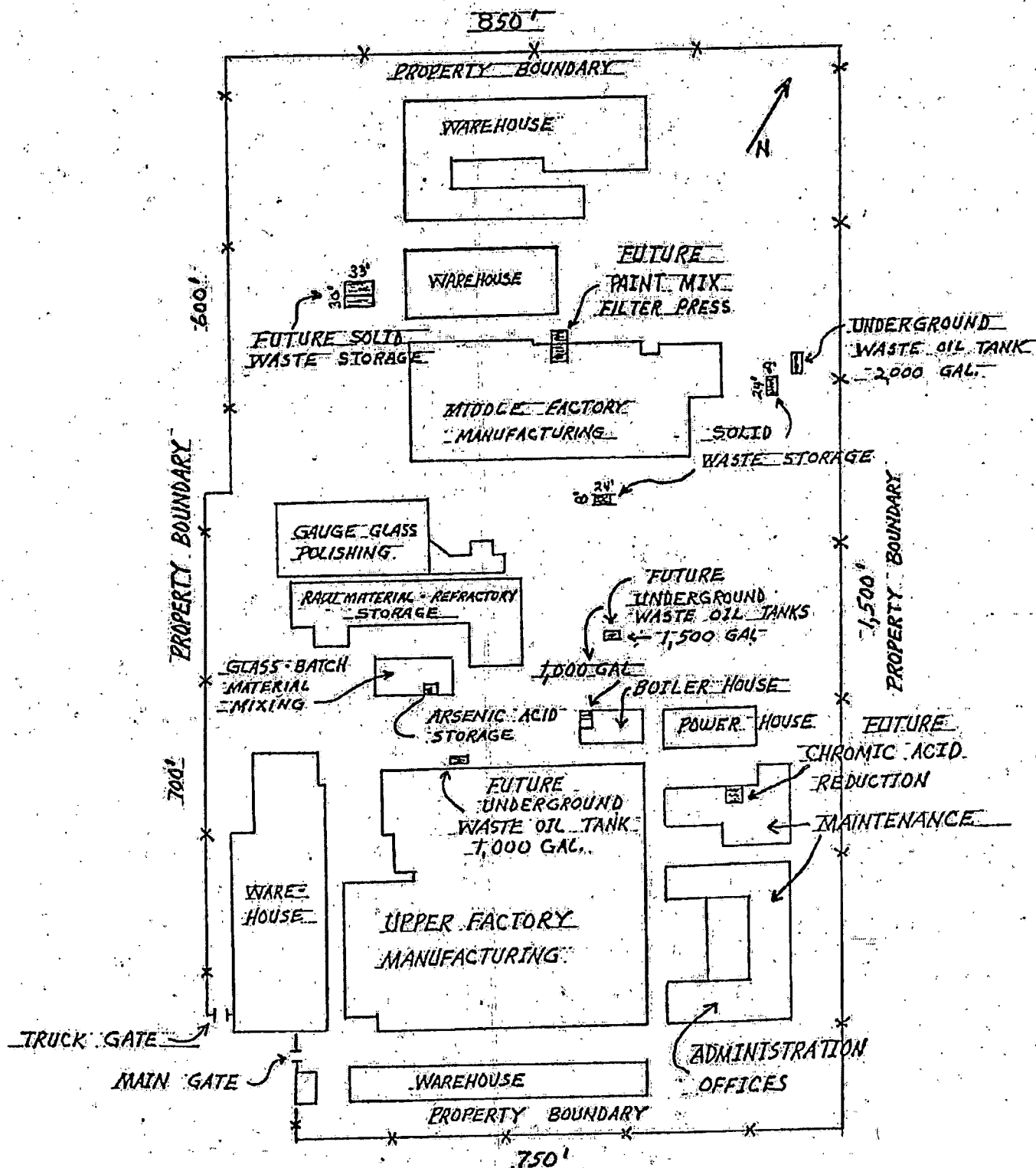
C. DATE SIGNED

M. J. Reidelbach  
Plant Manager

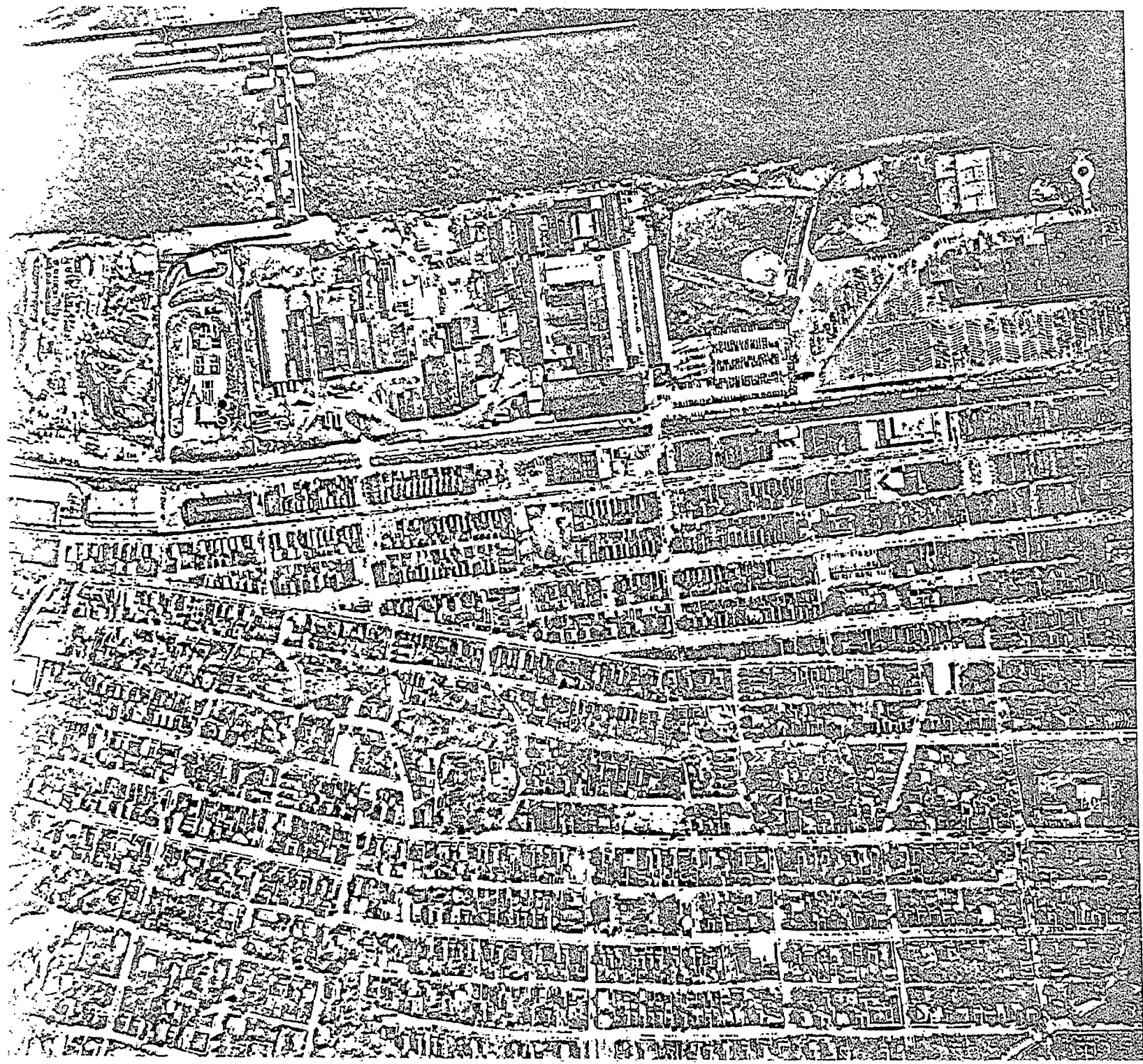
M.J. Reidelbach

11-7-80

CORNING GLASS WORKS - CHARLEROI, PA. 15022



SCALE: 1 INCH = 200 FT.





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL RESOURCES



Bureau of Solid Waste Management  
100 Forbes Avenue  
1202 Kossman Building  
Pittsburgh, Pennsylvania 15222  
Phone: Area (412) 565-5017

October 31, 1979

Corning Glass Works  
Corning, New York 14830

Attention: John L. Cherill, Engineer  
Energy and Environmental Control

RE: Charleroi Glass Works  
Welch Landfill  
Washington County  
I.D.#100590

Gentlemen:

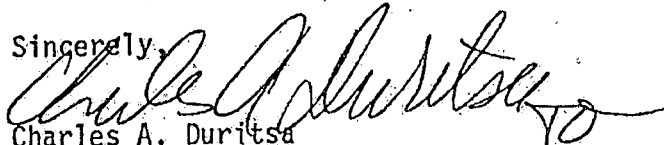
In response to your September 21, 1979 letter to Mr. Mark Frederick, of this office, we have the following comments:

1. The paper, cardboard, wood pallets, "off-spec" glass and cafeteria wastes are approved for the Welch's Landfill. These type wastes can go to any D.E.R. permitted disposal site.
2. The glass batch spillage is also approved for the Welch's Landfill in that it is a very small total volume, approximately one ton/year.
3. The electrostatic precipitator dust and the baghouse dust are denied for disposal at the Welch Landfill due to the high concentrations of heavy metals.

It is recommended that you contact Mill Services, Incorporated (343-4906) or Industrial Wastes Corporation (843-8130) regarding disposal of items in paragraph 3 above.

If you have any questions or comments, please contact me.

Sincerely,

  
Charles A. Duritsa  
Regional Solid Waste Manager  
Bureau of Solid Waste Management

CAD/ac

cc: C/B. Welch  
Central office  
Regional Office  
Chron



OFFICIAL FILE COPY

Pennsylvania Department of Environmental Protection

400 Waterfront Drive  
Pittsburgh, PA 15222-4745  
October 19, 2001

Southwest Regional Office

412-442-4000  
Fax 412-442-4194

CERTIFIED MAIL NO. 7000 1670 0004 1439 1861

(b) (4) Manager  
Occupational Safety, Health and  
Environment  
World Kitchen, Inc.  
100 8<sup>th</sup> Street  
Charleroi, PA 15022

Re: ECP - Special Projects - Act 2  
Final Report Approval  
Corning Consumer Products Company  
100 8<sup>th</sup> Street  
LRP I.D. No. 5-63-807-10632  
Charleroi Borough  
Washington County

Dear Mr. (b) (4)

The Department of Environmental Protection (DEP) has received the Notice of Intent to Remediate, Proof of Publication Notification, and the report entitled, "Act 2 Final Report, World Kitchen, Inc., Charleroi Plant, July 2001 dated September 4, 2001. The report was prepared by SE Technologies on behalf of World Kitchen, Inc. The Final Report was submitted to DEP in accordance with the Land Recycling and Environmental Remediation Standards Act (Act 2) to demonstrate attainment of the Statewide Health Standard. The September 4, 2001 report constitutes a "Final Report" as defined in Chapter 3, Section 303 of Act 2.

The Final Report documents the investigation and remediation of contamination associated with localized contaminant concerns at the Charleroi facility. Corning conducted several remedial actions including sump sludge removal, storm water system cleaning and video inspection of the Outfall 002 system, soil removal, and paving of remediated areas. On December 18, 1997, the Department granted non-use aquifer status for the site.

Based upon the information submitted in the Final Report, the Department approves the Final Report for the areas investigated and remediated.





James Rowlett, Manager

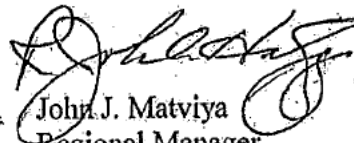
-2-

October 19, 2005

The soil and groundwater were contaminated with PCBs, lead, heavy metals, pesticides, solvents, BTEX, PHCs and PAHs. Chapter 5, Section 501 of the Act, provides liability protection to sites where attainment of cleanup standards is demonstrated.

Thank you for your cooperation in working with the Department in the remediation of this site. If you need additional information regarding this matter, please contact Mark Johnson at the Environmental Cleanup Program at 412-442-4067.

Sincerely,

  
for John J. Matviya  
Regional Manager  
Environmental Cleanup

cc: (b) (4) SE Technologies,  
(b) (4) Corning, Inc.